DIVISION OF CONSTRUCTION

OVERSIGHT ENGINEER FIELD GUIDELINES



Issued by
Division of Construction
California Department of Transportation
State of California

©2004 California Department of Transportation

Additional copies of this Guideline can be purchased from:

State of California
Department of Transportation
Publication Distribution Unit
1900 Royal Oaks Drive
Sacramento, California, 95815-3800

FAX: (916) 324-8997 TELEPHONE: (916) 323-5606 or (916) 445-3520

Preface

These guidelines provide a convenient source of information on policy and procedure, and should be used as a resource for Caltrans employees who provide quality assurance (QA) on projects administered by others on the existing or future state highway system. These guidelines are not a contract document between either the project sponsor or the contractor, and Caltrans. Neither the project sponsor nor the contractor are required or obligated to follow these guidelines. The encroachment permit and the cooperative agreement outline the requirements and obligations for the project sponsor and the contractor. Caltrans personnel who provide QA should never attempt to use these guidelines as a substitute for the encroachment permit or the cooperative agreement.

These guidelines do not apply when the local or private entity is funding all or part of the cost of the project and Caltrans is advertising, awarding and administering (AAA) the contract. Use the *Construction Manual* for policy, procedure, and guidance when Caltrans AAAs a contract, regardless of the funding source.

Over the last 20 years, funding for projects on the state highway system has changed. Before 1984, most of the improvements to the state highway system were paid for with funds collected through federal and state gas taxes. In 1984, the citizens of Santa Clara County passed a ½ cent sales tax measure increase to pay for improvements to the state highway system. As a result, many other counties have passed one or more sales tax measure increases to pay for transportation improvements. Each measure set aside various percentages of the revenues to pay for state highway system improvements. In 1991, Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) changing the Federal Highway Administration (FHWA) funding for transportation. Following the passage of the ISTEA, state legislation allocated part of the ISTEA funds directly to the Regional Transportation Planning Agencies (RTPAs) for programming. These funds are called local federal-aid funds. Local federal-aid funds have been programmed for projects on the state highway system, and administered by Caltrans or the local agency. Passage of the 1998 Transportation Equity Act for the 21st Century (TEA-21) allowed funding for local federal-aid projects to continue. Caltrans acts as FHWA's pass-through agent to disburse federal-aid funds to local agencies. Neither the ISTEA nor the TEA-21 changed these duties. Programming of State Transportation Improvement Program (STIP) projects changed with the passage of Senate Bill 35 (SB-35). Some STIP projects are now constructed on the state highway system under local administration. The release of a new federal authorization bill was expected by October 1, 2003. Future project funding is subject to change. Many counties are still contemplating and placing ballot measures to increase or extend their ½ cent sales tax increase for transportation.

The Division of Construction acknowledges the District 4 Oversight Committee for their contributions. The committee developed the District 4 Oversight Project Field Instructions to promote uniform methods and procedures when administering construction oversight projects. The committee was gathered to review existing policy and procedures found in an array of Caltrans documents and develop a reference guide for use by construction oversight staff. The District 4 Oversight Project Field Instructions was used as the basis for this guide.

Table of Contents

Chapter 1	Oversight Projects Definitions	
1-1	Definitions	1-1
Chapter 2	Construction Engineering Staff	2-1
2-1	Selection Process of Contract Administration Team	2-1
2-2	Staffing Level	
2-3	Caltrans Quality Assurance Resources	2-2
Chapter 3	Quality Assurance	3-1
3-1	Quality Assurance Administration Procedures	
3-101		
3-102	Advertise, Award and Administer	
3-103	Cooperative Agreement	3-1
3-104		
3-105	Resident Engineer Report of Assignment	3-3
3-106	Contract Records and Oversight Engineer Files	3-3
3-107	Contract Change Orders	3-5
3-108	Progress Pay Estimates	3-6
	Plans, Shop Plans and Submittal Reviews	
3-110	Falsework and Shoring Reviews	
3-111		
3-112	Notification of Altered Horizontal and Vertical Clearance	3-7
3-113	Labor Compliance and Equal Employment Opportunity	3-8
3-114	\mathcal{E}	
3-115	,	
3-116		
3-2	Quality Assurance Reviews	
	Materials	
	Construction Activities	
3-203	Cost Reduction Proposals for Structures	3-19
Chapter 4	Project Completion	4-1
4-1	Encroachment Permit and Cooperative Agreement Completion	4-1
4-101	Projects with Documents Bond	4-2
4-2	Federal-aid Project	4-3
4-3	Relief from Maintenance and Responsibility	4-3
4-4	Local Agency's Job Records	
Chapter 5	Liability	5-1
5-1	General Requirements for Liability Insurance	
5-2	Tort Liability	
5-3	Non-Contractor's Claims	
5-301	Public Claims by Person Not Related to the State	
5-302	Caltrans Claims Against a Permittee	

Chapter 6	Charging Practices for Oversight Projects	6-1
6-1	Cooperative Agreements	6-1
6-2	Permits	6-1
Chapter 7	Oversight Staff Relationships	7-1
7-1	Local Agency, Resident Engineer, Oversight Engineer & Contractor	
7-2	Federal Highway Administration	
7-201	Stewardship and Delegations of Authority	
7-201	Delegations Withheld	
7-203	Project Oversight	
FL-1	FHWA	
7-204	Events Invoking the Involvement of the FHWA on Nonexempt Projects	7-5
7-205	Contract Change Orders Requiring FHWA Prior Approval	7-5
7-3	Design Coordination	7-5
Chapter 8	Deficient Contract Administration and Sanctions	8-1
8-1	Federal-aid or State Funded Project	8-1
8-101	STIP, SHOPP and IIP Projects	
8-102	Local Federal-aid Projects	
8-103	Both Cases	
8-2	Oversight Project	
8-201	Encroachment Permit	
8-202	Cooperative Agreement	
Checklists		
CL-1	Oversight Engineer's Pre-construction Checklist	C-1
CL-2	Local Agency and OSE's Pre-construction Conference Checklist	C-3
CL-3	Resident Engineer Contract Provisions Checklist	
CL-4	OSE's Construction Contract Administration Verification Checklist	
CL-5	Federal-aid Projects	
CL-6	FHWA Acceptance Checklist for Federal-aid Nonexempt Projects	
Flow Charts	3	
FL-1	FHWA Oversight	2-3
FL-2	Flow Chart for Approving Request for Information	
FL-3		
FL-4	Agency Initiated Design Change Process	
FL-5	Material Control Flow Chart	
FL-6	Material Testing Process	F-9
FL-7	Lane Closure Approval Process	
FL-8	Communication Channels Flow Chart	F-13
FL-9	Accident/Incident Reporting Process	F-15
FL-10	Procedures for Clearance Notification	F-17
Forms		
FM-1	Preconstruction Conference Attendance Roster Form	F-19
FM-2	Form CEM 1101, Documents Bond	F-21
Acronyms .		F-2í

Chapter 1 Oversight Project

Section 1 Definitions

Local agency - Any public entity (federal, state, RTPA, county, city, or other local government entity) that sponsors or administers a construction contract on the state highway system. In addition, any private entity that sponsors or administers construction contracts on the state highway system, unless otherwise noted can be considered a local agency.

Oversight project - Any project with a construction cost within the existing or future state highway right-of-way of \$300,000 or greater where the local agency administers the construction contract. Oversight projects are financed in whole or in part by a local agency. Oversight projects with an estimated construction cost of \$1 million or more are constructed under the terms of a cooperative agreement and encroachment permit. Oversight projects sponsored by private entities, with an estimated construction cost of \$1 million or more, are constructed under the terms of a Highway Improvement Agreement and encroachment permit. Most oversight projects with an estimated construction cost of less than \$1 million are constructed under the terms of an encroachment permit only. Certain projects such as those involving signal construction, landscaping, or sound walls, may require an agreement.

Quality assurance (QA) – All those planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality.

Quality control (QC) – All contractor operational techniques and activities that are performed or conducted to fulfill the contract requirements.

Oversight engineer (OSE) - A Caltrans construction employee who performs QA and oversight for construction projects within the existing or future state right-of-way that are administered by someone other than Caltrans. OSE performs QA of the resident engineer's actions. For federal-aid projects, the OSE performs QA for the entire project. Typically, an oversight project will have one Caltrans engineer assigned as the OSE, while other Caltrans staff are assigned as assistant OSEs. For landscape projects, the OSE can be a landscape architect.

Office of Structure Construction – Oversight Engineer (OSC/OSE). A Caltrans Office of Structure Construction employee who is assigned to assist the OSE as the structure representative. OSC/OSE can also be the OSE.

Resident engineer - Use in the same context as described within the *Construction Manual*, except, the resident engineer works for the local agency, not Caltrans. Resident engineer performs QA of the contractor's QC operations.

Federal-aid project - Any project that has received any funding from the Federal Highway Administration (FHWA). Local agencies usually are reimbursed federal funds through Caltrans based on invoices received. Local agencies rarely receive funds directly from FHWA. Federally funded projects are not subject to the federal-aid portions of these guidelines if not funded by the FHWA. Projects not funded by

FHWA are subject to the policy and procedures established by the federal funding agency.

Cooperative agreement - Any formal, legally-binding contract between Caltrans and a city, county, or any public non-state entity for the construction phase of the project, whereby the participants agree to either share or cooperate in state highway improvement projects. Cooperative agreements outline the responsibilities and respective obligations of the participants. Cooperative agreements are required when exchanges of funds or commitments of personnel resources will occur.

Encroachment permit - A permit issued by Caltrans granting permissive authority to enter the state right-of-way and construct approved facilities. An encroachment permit is a valid contract when accepted by the permittee. Acceptance is acknowledged when any of the acts or work specified under the permit is performed. An encroachment permit is not a property right. It authorizes only the permittee or permittee's agent to perform work. The permittee may not transfer or assign an approved permit to another party. Double permitting is authorized for the local agency and their contractor.

Chapter 2 Construction Engineering Staff

Section 1 Selection Process of the Local Agency's Contract Administration Team

Caltrans is responsible for reviewing the qualifications of proposed field staff and approving the local agency's construction contract administration team for oversight projects that have a cooperative agreement. The cooperative agreement states the roles and responsibilities of both the local agency and Caltrans for the construction phase of the project. The cooperative agreement states that the resident engineer and support staff are subject to the approval of Caltrans. The OSE is responsible for approving the resident engineer and support staff proposed by the local agency. Nonexempt federal-aid projects ("N" projects) may also require approval from the FHWA engineer.

To attain the most favorable results, become involved early in the selection process, before the local agency assigns the essential members making up the construction management team for the project. The team usually includes a resident engineer, the resident engineer's support staff, a structure representative, a survey group, and a materials laboratory. The resident engineer must be registered in the State of California as a Civil Engineer (other registered disciplines are allowable depending on the work) and perform the duties of field site representative. All team members must be qualified to perform their duties, and thoroughly acquainted with the methods and procedures used by Caltrans. For projects covered by National Pollutant Discharge Elimination System (NPDES) permit(s), the construction management team must be qualified and knowledgeable in Storm Water Pollution Prevention (SWPP). All field staff members except survey and laboratory staff are required to have attended 24 hours of SWPP training as a minimum. For projects covered by section 7-101G of the Standard Specifications, the construction management team is also to be knowledgeable in Water Pollution Prevention. Upon acceptance, inform the oversight design engineer(s) of the final staffing plan.

When a local agency hires a consultant firm to perform the construction management, review the proposals made by the consulting firm, and participate in the interview process. Comments, suggestions, and concerns about a consultant's qualifications should be forwarded to the local agency. For federal-aid projects, while the resident engineer and support staff may be consultants, the local agency shall assign a full-time registered engineer to be in responsible charge of the project at all times, although the engineer need not be assigned solely to that project. "Responsible charge" means the local agency public employed engineer is:

- Aware of the day-to day operations on the project
- Aware of and involved in, decisions about changed conditions which require change orders or supplemental agreements
- Aware of the qualification, assignments and on-the-job performance of the consultant staff at all stages of the project
- Visiting the project on a frequency that is commensurate with the magnitude and complexity of the project

Once the construction management team members are selected, the resident engineer shall verify that the local agency's lab and all lab personnel and field engineers are certified by Caltrans to take samples and to perform lab tests in accordance with Caltrans testing methods. The resident engineer shall place a copy of Form TL-0111, "Certificate of Proficiency" in the project files for each lab person and field engineer. Non-certified personnel shall not be allowed to perform material acceptance sampling and testing. Check the files periodically to make sure the certifications are in the files.

Section 2 Local Agency's Staffing Level

Cooperative agreements typically do not specify staffing levels. Cooperative agreements only require that the local agency furnish qualified support staff, to assist the resident engineer and assure that the construction is being performed in accordance with the plans and specifications. Discuss acceptable staffing levels with the local agency before the local agency assigns project personnel or hires consultants to perform contract administration and inspection duties. Work closely with the local agency to ensure they provide sufficient staffing throughout the project to meet the workload. The local agency can ensure sufficient inspection within the existing or future state right-of-way by providing adequate staff. Adequate staffing requires less demand on the Caltrans oversight resources. Failure by the local agency to provide sufficient staffing to undertake and satisfactorily complete the project is just cause to revoke the local agency's and contractor's encroachment permit. In addition, if the project is not adequately staffed or suitably equipped, local agency's federal-aid funds can either be withheld or canceled. (See Chapter 9 "Deficient Contract Administration and Sanction.")

Section 3 Quality Assurance Resources

The deputy district directors and region division chiefs of construction are responsible for assuring that adequate staff is assigned to each oversight project to perform required levels of QA. To accomplish this, personnel in district construction should work closely with district project management to ensure all oversight projects are identified, and the resources estimated for each project are adequate. Resources allocated for QA should be redirected to other projects only when the resource needs for oversight projects has decreased from what was estimated during the capital outlay support budget process. When first assigned an oversight project the OSE should obtain a copy of the project work plan that determined the resources allocated for QA activities for the project.

Chapter 3 Quality Assurance

Section 1 Quality Assurance Administration Procedures

All OSEs and OSC/OSE should have the latest versions of the following Caltrans manuals, or Internet access to the manuals in order to perform QA for OSE:

- Construction Manual (CM)
- Encroachment Permits Manual
- Local Assistance Procedures Manual (LAPM)
- Highway Design Manual
- Independent Assurance Program Manual

For OSC/OSE:

- Construction Records and Procedures Manual (CRAP)
- Bridge Design Manual
- All Bridge Construction Manuals and Guidelines

The QA administration procedures during the construction phase of typical oversight projects are outlined below.

3-101 Funding

The cooperative agreement will contain information on project funding. Review the agreement to check for federal and state funding on the project. If federally funded, determine if the project is an exempt or nonexempt project. (See Chapter 2, "Federal Highway Administration.")

3-102 Advertisement, Award and Administration

Oversight projects are advertised, awarded and administered by local agencies. Caltrans policy states that the entity that advertises and awards the project shall also administer the construction contract. Only the Chief of the Division of Construction may waive this policy.

3-103 Cooperative Agreement

Become familiar with the cooperative agreement. Cooperative agreements vary greatly from project to project depending on the type of funding or the local agency involved in the project. Construction oversight staff should participate in the review of the cooperative agreement. To increase the chances of incorporating comments, make comments early and provide a complete justification. This document is the contract between the local agency and the state, and outlines roles and responsibilities.

Cooperative agreements are normally divided into four parts:

- Recitals
- Section I, Local Agency Agrees

- Section II, State Agrees
- Section III, Mutually Agreed

3-103A Recitals

Recitals describe the project and set the stage for the agreement.

3-103B Section I, Local Agency Agrees

Section I outlines the terms that the local agency agrees to. Although the wording in the cooperative agreement may seem standard, construction staff should be familiar with each cooperative agreement. The cooperative agreement contains specific details unique to each project. Some of the details found in Section I are of particular importance to construction. Typical details include the following:

- Requirements for encroachment permits for both the local agency and the contractor
- Contract administration procedures conform to the requirements set forth in the Construction Manual, Local Assistance Procedures Manual, and the Encroachment Permit Manual
- Requirements for material testing and quality control.
- Description of resident engineer (field site representative) duties
- Breakdown and funding responsibility of roadway construction and construction engineering costs
- Requirements for construction engineering staffing
- Requirements for as-built plans and other submittals
- Requirements for survey monumentation preservation and replacement

3-103C Section II, State Agrees

Section II outlines the terms that the state agrees to. Typical details include the following:

- The state's funding responsibility
- The process for transferring funds to the local agency
- Staffing commitments for the project

3-103D Section III, Mutually Agreed

Section III outlines mutual agreements. Typical details include the following:

- Plan approval requirements
- Procedures for procuring an encroachment permit
- Right of way certification by the local agency
- Award requirements
- Liability insurance requirements
- Contract change order process
- Contract claims process

3-104 Encroachment Permit

Once the complete project package has been approved including a fully executed cooperative agreement, it is forwarded to the district encroachment permit unit to issue the local agency an encroachment permit. The contractor is required to obtain a separate encroachment permit before starting any construction work within the state right-of-way. Become familiar with the encroachment permit. Do not allow the contractor onto the state highway right-of-way without possession of an encroachment permit, regardless of the circumstances.

3-105 Resident Engineer Report of Assignment

The resident engineer shall complete Form CEM-0101, "Resident Engineer's Report of Assignment," and forward the report to the OSE and to the FHWA engineer for nonexempt projects. For all projects, the OSE is named on the report as a contact person in addition to the resident engineer under the "CALIFORNIA DEPARTMENT OF TRANSPORTATION" contact list. Review the form and distribute it as required by the *Construction Manual* and district procedures.

3-106 Contract Records and Oversight Engineer Files

The resident engineer is responsible for contract documentation and maintaining all contract records. The OSE is responsible for documenting records of conversations between Caltrans and the local agency representatives, approvals, inspections, reviews and other such activities on the Form TR-0130, "Encroachment Permit Report (Diary)."

Cooperative agreements require the local agency's contract administration procedures to conform to the requirements in the *Construction Manual*. Therefore, construction documentation for projects with cooperative agreements are categorized and filed in accordance with Section 5-102, "Organization of Project Documents" of the *Construction Manual*. Contract files maintained by the resident engineer must be accessible to the OSE and are reviewed periodically throughout the life of the project to verify conformance with Caltrans procedures.

The OSE establishes and maintains a project file for each oversight project. As a minimum, the file should include the following:

- Cooperative agreement and encroachment permit
- CL-1, "OSE Preconstruction Checklist"
- CL-2, "Local Agency and OSE's Preconstruction Conference Checklist"
- CL-3, "Resident Engineer Contract Provisions Checklist"*
- CL-4, "OSE's Construction Contract Administration Checklist"
- Contract special provisions and plans, completed bid sheet, and a breakdown of lump sum items (include any addenda)
- Form CEM-0101; "Resident Engineer's Report of Assignment"
- Correspondence between the local agency, Caltrans, and FHWA *
- Form TR-0130, "Encroachment Permit Report(s)"
- Form TR-0129, "Encroachment Permit Progress Billing/Completion Notice"

- Form TR-0122, "Encroachment Permit Rider(s)," if applicable
- For nonexempt projects, FHWA Form 1446C, "Final Inspection of Federal-aid Project" (Exhibit 17-B LAPM signed by the FHWA engineer)
- For exempt projects, "Local Agency Final Inspection Form" (Exhibit 17-C LAPM) signed by the OSE *
- List of all the Contract Change Orders (CCOs) with Caltrans CCO codes and a copy of all CCOs requiring Caltrans concurrence and FHWA approval *
- Copy of requests for information (RFI) log, if applicable
- Copy of approved falsework and shoring plans
- Copy of submittals, as applicable
- Storm water pollution prevention or water pollution control documentation
- Form CEM-3101, "Notice of Materials to be Used" when source inspection is requested or required
- Job photos
- Form TR-0020, "Notice of Change in Vertical and Horizontal Clearance" if applicable
- Copy of contract progress pay schedules, when required by the agreement
- Project documentation required by Engineering Services
- All other project completion records required by the cooperative agreement and encroachment permit
- Environmental Protection Agency (EPA) Identification numbers (ID) and tracking material for hazardous materials issues
 - * Only required on federal-aid projects

The following is a partial descriptive list of the aforementioned records:

Several checklists have been developed for performing QA. The CL-1, "OSE Preconstruction Checklist" is a convenient list of items to have when first assigned responsibilities for an oversight project. CL-2, "Local Agency and OSE's Preconstruction Conference Checklist" provides a list of items to discuss with the resident engineer at the first meeting. CL-3, "Resident Engineer Contract Provisions Checklist" is to verify and document that the local agency's contract meets federal requirements.

The OSE, Office of Structures Construction Oversight Engineer (OSC/OSE), and staff document each visit to the project site or office on Form TR-0130, "Encroachment Permit Report (Diary)" and the CL-4, "OSE's Construction Contract Administration Checklist." This documentation should include the scope of activities, approvals, safety review comments, records of conversation, and other items noted on the checklist to verify construction contract administration. The checklist does not need to be filled out completely with each visit, just the items that were reviewed. The diary shall not include detailed labor, equipment and material information; the resident engineer's staff shall perform that task. The amount of time spent at the project site or office, and travel time, shall be recorded on the report to the nearest half-hour. A single form can be used for multiple inspections, with

inspection time totaled and noted in the space provided on the form. On encroachment permit projects, the reports are submitted to the district encroachment permit unit for processing. When the encroachment permit indicates that the permittee will reimburse the state for inspection, all time shown on the report must agree with the Form TR-0129, "Progress Billing/Completion Notice." TOPS must show the time charged to the inspection Expenditure Authorization (EA).

Requests for Information (RFIs): Typically, the resident engineer establishes an RFI file and log on large projects. The OSE should be aware of the RFIs and the corresponding responses. (See FL-2, "Approving Request for Information Process").

Required Office of Structure Construction (OSC) project documentation and the distribution schedule can be found in the *Bridge Construction Records and Procedures Manual* (BCM), Section 2-19.0, "Administration of Special Funded Projects." Most structure completion records that are normally required on Caltrans administered projects are also required on oversight projects.

The encroachment permit general provisions and cooperative agreement require the permittee to submit as-built plans to Caltrans. As-built plans shall conform to the requirements stated within the encroachment permit and cooperative agreement. The OSE and OSC/OSE ensure that the resident engineer adds modifications to the asbuilt plans as the project progresses. The OSE and OSC/OSE must verify the accuracy of the as-built plans.

The permittee is required to submit Form TR-0128, "Notice of Completion" to the OSE upon completion of the project.

The OSE must complete Form TR-0129, "Progress Billing/Completion Notice." This form shall not be signed until the as-built plans, when required, are submitted by the permittee and approved by the OSE. The completed form is forwarded to the district encroachment permit unit.

3-107 Contract Change Orders

The resident engineer shall prepare all contract change orders. Design changes shall be reviewed and concurred by the designer of record. Caltrans is not responsible for resolving design conflicts or for drafting contract change orders. Review and give written concurrence (or denial), of all contract change orders related to public safety, public convenience, and the design or specification changes for work within the state's ultimate right-of-way. Concurrence is given in advance of performing the work. Design changes shall be reviewed with the design oversight project engineer and major structure design changes shall have the concurrence of the structure liaison engineer. For minor structure changes, the OSC/OSE may use Form DS-OS C93, "Office of Structure Construction Concurrence for Changes Involving Structure Work," to indicate technical concurrence with the proposed changes. A copy of the contract change orders requiring the OSC/OSE's concurrence shall be included in the OSE's project file.

The district's contract change order approval process shall apply to oversight projects, except contract change orders on an oversight project do not need Division of Construction prior approval. In order to mitigate any possible delay in the concurrence of contract change orders, a review process that specifies procedures and timelines between Caltrans and the local agency shall be agreed upon. (See FL-

3, "Change Order Approval Process", and FL-4, "Agency Initiated Design Change Process.")

On nonexempt federal-aid projects, prior approval of contract change orders from the FHWA engineer is normally done through the OSE. The resident engineer does not get prior approval directly from the FHWA engineer unless the FHWA engineer approves communication directly with the FHWA in advance at the preconstruction meeting. Refer to Chapter 2, "Federal Highway Administration" for the FHWA contract change order approval requirements.

Failure of a local agency to get approval by the FHWA for a contract change order in advance of doing the work can make the contract change order ineligible for federal reimbursement

3-108 Progress Pay Estimates

The local agency is responsible for processing progress pay estimates. Spot-check progress pay estimates quarterly to monitor the progress of the project.

3-108A State Funds

Verify that any designated monies from the state are being used for the designated work. Meet with the Caltrans oversight design engineer and the local agency to ensure that everyone agrees upon what the state will pay for, and how that amount will be determined. It may be a simple lump sum, a percentage of the project, or specific items for a specific portion of the project. The local agency should send the OSE detailed invoices. Confirm the details of the invoices. Compare the invoices with the quantities or amounts originally estimated. Spot check quantity calculations made by the local agencies.

3-108B Federal-aid Projects

Spot check to verify that quantity calculations include source documents as outlined in Section 3-903C, "Source Documents" of the *Construction Manual*. Spot checks are conducted quarterly. The local agency does not need to use Caltrans issued forms for source documents. The local agency can use their own forms as long as there are separate files for each contract item and the calculations provide an audit trail.

3-108C Progress Payments

When the contractor receives each progress payment from the local agency, federal and state regulations require the prime contractor to pay subcontractors for satisfactory performance no later than a specific number of days (10 for state and 30 for federal).

Federal regulations also require the prime contractor to promptly release retainage on payments to the subcontractors no later than 30 days after the subcontractor's work is satisfactorily completed.

Performance is considered satisfactory when the local agency pays for all or part of the item of work on the progress payment, that is; if the local agency pays the prime contractor then the prime contractor should pay the subcontractors.

If a subcontractor notifies the resident engineer that they are not being paid promptly by the prime contractor, the resident engineer must be proactive in settling any disputes, and not wait until the end of the contract. Once notified, the resident engineer must make sure the subcontractors are paid promptly, or have documentation from the prime contractor explaining why the subcontractors have not been paid. Prime contractors can not arbitrarily set satisfactory performance measures. The prime contractors have to show just cause for not paying the subcontractors such as: not submitting payrolls, failure to pay suppliers, and other causes. Discuss prompt payment requirements with the resident engineer during their preconstruction meeting.

3-109 Plans, Shop Plans, and Submittal Review

Establish a process for plans, shop plans, and submittal reviews with the input of the OSC/OSE. Submittals and plans for permanent and temporary work, which will require the concurrence of Caltrans, are established before start of construction. Since multiple parties are involved in the review process, review periods are critical to the submittal approval process. A process is established that meets the time limits specified in the approved contract documents. See BCM 2-19.0 for additional information on the structure submittals.

3-110 Falsework and Shoring Reviews

The OSC/OSE receives an approved copy of all falsework and shoring submittals for work to be constructed adjacent to public traffic and within the existing and future state highway right-of-way from the resident engineer. The OSC/OSE performs a review of the submittal to verify that the Caltrans established best practices policies and procedures are followed before erection or construction. This review does not include an independent check of the calculations or plans. Independent checks are considered reimbursed work and require district director prior approval before performing the work. (See Chapter 7, Section 1, "Cooperative Agreements.") The OSC/OSE also verifies that the local agency's resident engineer or approved representative shall have independently reviewed and approved the plans. Whoever approves the plans can not have any affiliations with the person or firm that prepared the plans. An independent review is required. The local agency's approval shall be noted on the approved plans similar to the approval used by the structure representative on a Caltrans administered project. A copy of the approved submittal is forwarded by the OSC/OSE to the headquarters OSC.

3-111 Right-of-Way Maintenance Responsibility

During construction, the local agency is responsible for maintaining the state highway right-of-way that will be affected by the project as outlined in the encroachment permit. Communications are established between the Caltrans local maintenance supervisor, the resident engineer, the local agency's person in responsible charge, and the OSE to outline responsibilities consistent with Section 5-006 "Maintenance Reviews" of the *Construction Manual*.

3-112 Notification of Altered Horizontal and Vertical Clearance

The resident engineer must notify the OSE of all proposed changes to vertical or horizontal clearance in accordance with Section 3-750, "Public Safety" of the *Construction Manual*. Submit Form TR-0020, "Notice of Change in Vertical or Horizontal Clearance" at least 15 calendar days before implementing the proposed vertical or horizontal clearance changes. Submit the form to either the north region or south region construction/maintenance liaison in the Transportation Permits

Branch. The north region liaison is responsible for districts 1, 2, 3, 4, 5 (except San Luis Obispo and Santa Barbara Counties), 6 (except Kern County), and 10. The south region liaison is responsible for districts 5 (San Luis Obispo and Santa Barbara Counties only), 6 (Kern County only), 7, 8, 9, 11, and 12. Failure to report proposed changes timely and accurately may compromise public safety or cause delays to the travelling public.

3-113 Labor Compliance and Equal Employment Opportunity

Federal and state laws require contractors working on public works contracts to pay prevailing wages to their employees. The resident engineer is responsible for ensuring that the contractor is in compliance with the laws. These responsibilities are outlined in Section 8-1, "Labor Compliance," of the *Construction Manual*.

The resident engineer is also responsible for administration of the nondiscrimination and equal employment opportunity provisions of the contract. These responsibilities are outlined in Section 8-2, "Equal Employment Opportunity," of the *Construction Manual* and Construction Policy Bulletin 03-7 (CPB 03-7) "Civil Rights Act of 1964, Title 7 Equal Employment Opportunity Complaints and Reporting."

3-113A Federal-aid Projects

The local agency is responsible for designating a labor compliance officer to enforce the contract provisions and to ensure that all labor compliance requirements are performed and documented in the project files. The labor compliance officer may be a consultant; however, the labor compliance officer can not be the resident engineer. The resident engineer is responsible for notifying the OSE, in writing, who the local agency chooses as the labor compliance officer. The officer is subject to the same review and determination of acceptance as the rest of the local agency's contract administration team, as outlined in Chapter 3, Section 1, "Selection Process of Contract Administration Team." The resident engineer and labor compliance officer are required to follow the procedures outlined in Section 8-1, "Labor Compliance," of the *Construction Manual*.

Verify that the resident engineer is conducting employee interviews as outlined in CPB 03-7. Spot-checking of completed Form CEM-2504, "Employee Interview: Labor Compliance/EEO" is recommended to make sure that the local agency's labor compliance officer is investigating any irregularities noted during the interviews.

The local agency's labor compliance officer is responsible for spot-checking the certified payrolls as outlined in *CPB 03-7*. Spot-check to verify that payrolls are checked for compliance.

One month after the start of construction, check to see that federal posters are posted for every worker to see. The posters should be posted at, or near, the contractor's office, at the construction site, or at the central gathering point of the contractor's workers. List of required posters can be found by visiting FHWA's Website at: http://www.fhwa.dot.gov/programadmin/contracts/poster.htm

3-113B All Other Projects

The local agency is responsible for ensuring that their contractor is complying with state labor compliance laws and regulations, and for reporting labor compliance violations to the California Department of Industrial Relations, Division of Labor Standards Enforcement. The OSE is not required to perform QA of the local agency's state labor compliance enforcement.

3-114 Disadvantage Business Enterprise

Federal regulations require that any local agency that awards contracts with federal transportation funds is required to establish a Disadvantage Business Enterprise (DBE) program, which has been approved by District Local Assistance Engineer. As part of the DBE program, the local agency is required to designate a DBE liaison officer to administer the local agency's DBE program. The DBE liaison officer can not be the resident engineer or a member of the resident engineer's staff. Each federal-aid construction contract is required to include the DBE specification; however, not all the contracts are required to have a DBE contract goal. The DBE liaison officer and the resident engineer ensure the contract goal. The DBE liaison officer and the resident engineer ensure the contractor meets the contract DBE goal with certified DBEs. To determine responsiveness to DBE provisions for subcontractor substitutions, the DBE liaison officer and the resident engineer review and evaluate the good faith efforts of the contractor.

The resident engineer is required to follow the local agency's DBE program. The local agency's DBE program is similar to Section 8-303, "Monitoring and Enforcement During Construction," and Section 8-304, "Adding, Removing or Substituting DBE or DVBE Subcontractor," of the *Construction Manual*. The local agency officers and personnel replace Caltrans divisions, officers, and personnel noted. The OSE spot checks to verify the local agency is meeting the DBE requirements quarterly. Note: State law only requires Disabled Veterans Business Enterprises (DVBEs) on state administered contracts, not local agency administered contracts.

If the local agency is not following the DBE requirements, the federal funds shall be withheld from the local agency until the local agency can show proof that they are following the federal DBE requirements. An example of non-compliance would be the project files do not have documentation showing the DBEs listed on the contractor's DBE Information Form provided a commercial useful function on the project. Without documentation, the contract items, or parts of the contact items, designated for the DBE are ineligible for federal participation. Complete lack of documentation in the project files to show that any of the DBEs listed performed a commercial useful function, can cause the project to become ineligible for federal participation. (See Chapter 9, "Deficient Contract Administration and Sanctions.")

3-115 Environmental Hazards and Safety Procedures

Hazardous materials, hazardous waste and hazardous spills are handled in accordance with the *Construction Manual* procedures outlined in Section 7-106, "Environmental Hazardous and Safety Procedures," and Section 7-107, "Hazardous Spills." Funding is dependent on the specific language in the cooperative agreement. For most cooperative agreements, responsibilities and costs for any action regarding unforeseen hazardous waste sites can be covered by an amendment to the original cooperative agreement. Become familiar with hazardous waste and materials requirements in the cooperative agreement, and if hazardous waste is encountered assure the resident engineer adheres to the requirements in the *Construction Manual*

and cooperative agreement. The resident engineer can not use Caltrans hazardous waste emergency contracts unless provided for in the cooperative agreement.

3-116 Contractor Claims

The resident engineer and contractor must follow the procedures for notices of potential claims according to the *Standard Specifications* and the contract's special provisions. The resident engineer shall notify and provide the OSE with a list of all notices of potential claims whenever the list is updated. Monitoring of potential claims is especially important when state funds are involved. When the project is a nonexempt federal-aid project, copies of the list shall be sent by the resident engineer to the FHWA engineer and the OSE at the same time.

The local agency must provide a claim process acceptable to Caltrans, and shall process claims through the local agency's claim process. The claims process outlined in the *Standard Specifications*, Section 9-1.07, "Payment After Acceptance" may be used as a pattern for a local process, but local officials, rather than Caltrans personnel, shall be used. If requested by the local agency, the OSE may provide advice and technical input in any claim process. Participation in the settlement of claims that involve state funds will be based upon the percentage of state funding on the project, and will require concurrence by Caltrans. The FHWA engineer prior approval is required for federal participation in the claim settlement for nonexempt projects.

Section 2 Quality Assurance Reviews

The primary role of the OSE is to perform QA by verifying that the resident engineer is providing QA of the contractor' QC of the work on the existing or future state highway right-of-way. The resident engineer's QA is to ensure that the project is constructed in accordance with the *Standard Specifications*, project special provisions and plans, and conforms with the methods and practices specified in the *Construction Manual*. The OSE performs this role by exercising the authority given in the cooperative agreement and encroachment permit. The cooperative agreement authorizes Caltrans to accept or reject the work, order any actions necessary to ensure public safety and the preservation of property, and ensure compliance with all provisions of the encroachment permit.

The Construction Manual (CM), Encroachment Permits Manual (EPM), and Local Assistance Procedures Manual (LAPM) contain a lot of information and requirements. In order to perform QA on federal-aid construction projects, researching these manuals for the QA requirements can become a cumbersome process. To simplify the QA process, checklists have been developed. The checklists contain some of the items that should be checked when reviewing a project. The checklists are not an all-inclusive list of everything that needs to be checked when providing QA. The checklists also provide references to the LAPM, EPM, CM, and the recommended frequency for checking each item. Providing QA also requires verifying that the resident engineer is ensuring that the project is constructed in accordance with Caltrans approved Plans, Specifications, & Estimate (PS&E). Therefore, a copy of the Caltrans Highway Design Manual is recommended reading.

For federal-aid projects, the primary role of the OSE is expanded to include acting on the FHWA's behalf to perform QA, and verifying the resident engineer is ensuring compliance with federal requirements outlined in the contract and the Construction Manual. Caltrans accepted this responsibility as part of the stewardship agreement with the FHWA.

All OSEs, assistants, and OSC/OSEs should be equipped with the Caltrans Encroachment Permits Inspection Booklet. This guide can be obtained from the headquarters Encroachment Permits Branch or the district encroachment permit office. The booklet was developed and first published in October 1998 by the headquarters Encroachment Permits Branch as a guide for developing standard practices in permit inspection.

Shown below are the essential steps that should be taken before the beginning of construction:

- Review the cooperative agreement, encroachment permit, project plans, and special provisions. Use CL-1, "OSE Preconstruction Checklist."
- Establish communication channels between Caltrans oversight design staff and the local agency. See Chapter 8, "Oversight Staff Relationships" for additional information.
- Participate in the local agency's staffing decisions concerning construction administration personnel, including rejecting those construction administration personnel not qualified to perform the function for which they will be hired.
- Ensure that the local agency has initiated contract administration procedures in accordance with the *Construction Manual*. Use CL-2, "Local Agency and OSE's Preconstruction Conference Checklist."

Once construction has started, the frequency of field reviews and project record reviews depends on a determination by the OSE of whether work within state highway right-of-way conforms to the approved plans and specifications, and whether public safety and convenience is maintained in accordance with the contract. The typical inspection procedures for QA of project materials and construction activities are as outlined in CL-4, "OSE's Construction Contract Administration Checklist" and as described below.

3-201 Materials

Contracts administered by local agencies shall provide for acceptance samples and tests as required in Chapter 6, "Sampling and Testing," of the *Construction Manual*. This includes full administration of sampling, testing, inspection programs, and acceptance of those materials and processes involved in the work described in Chapter 6 and elsewhere in the *Construction Manual*. Independent assurance testing, specialty testing, and source inspection, typically remain the responsibility of Caltrans. For federal-aid projects, each local agency shall develop a Quality Assurance Program (QAP) which will assure the materials and workmanship incorporated into the project are in conformity with the requirements of the contract.

Before execution of the cooperative agreement for the construction phase of the oversight project, district construction should have reached an understanding with Materials Engineering and Testing Services (METS) and the district materials engineer (DME) defining specialty testing, establishing a schedule for fabrication and construction activities, and outlining responsibility for source inspection. Chapter 16, Section 16.14, "Quality Assurance Program – Source Inspection," of the

Local Assistance Procedures Manual (LAPM) establishes a process by which an understanding can be reached. Ensure that the understanding is in place when first assigned the oversight project. If not in place, contact METS and the DME to establish an understanding.

3-201A Source Inspection

As part of the preconstruction conference, establish protocol with the resident engineer and contractor for communicating with METS. The resident engineer is responsible for completion of Form CEM-3101, "Notice of Materials to be used." (See Appendix B, FL-5, "Material Control Flow Chart.") The resident engineer sends either the original or a copy of this completed form to the OSE. Depending on who is responsible for communication with METS, either the OSE or the resident engineer shall ensure distribution as stated on the bottom of the form, and to keep METS apprised of changes to the construction schedule. METS reviews the form and assigns inspection responsibilities to varying units. Materials may be accepted by certificates of compliance or by source testing. If materials are accepted by a certificate of compliance, METS forwards Form TL-0028, "Notice of Material to be Inspected" to the resident engineer. If material cannot be accepted by a certificate of compliance, METS inspects and tags the material using Form TL-624, "Inspection Tag" and sends Form TL-0029, "Report of Inspection of Material" to the resident engineer. Verify that the resident engineer is following these procedures during project record reviews.

During the construction review phase for the cooperative agreement, district construction should have discussions with the METS Structural Materials Representative (SMR). Once the OSE is assigned the oversight project, the OSE needs to have discussions with the METS SMR to ensure awareness of the cooperative agreement provisions for reimbursement. In addition, the OSE provides the METS SMR with the appropriate charge codes and ensures that the METS SMR makes the charges appropriately. When the Division of Accounting receives the charges to that Expenditure Authorization (EA), they will bill the local agency. To make sure the EA is properly set up for reimbursed work charges at the start of the project; the OSE should confer with Division of Accounting before the start of construction.

An updated list of the METS SMRs can be obtained at this Website:

http://www.dot.ca.gov/hq/esc/Translab/smforms/StructuralMaterialsRepresentatives

3-201B Onsite Materials

The resident engineer is responsible for accepting or rejecting all onsite materials. All materials shall be approved before placement or incorporation into the work. Material tags shall be collected, matched with Form TL-0029, and placed in the project files. Certificates of compliance shall be collected for materials listed on Form TL-0028 and placed in the project files. The resident engineer is responsible for accepting or rejecting material delivered to the job site, which has not been released by METS and may be accepted by a certificate of compliance. The contractor must provide the certificates before placing the material. Only fabricated material for which the resident engineer has received a Form TL-028, "Notice of Materials to be Inspected" or TL-029, "Report of Inspection of Material" can be incorporated into the project. The OSE spot-checks the project files to verify the documentation is in the files.

3-201C Buy America Requirements

All federal-aid projects shall conform to the Buy America requirements as outlined in Section 3-605, "Certificates of Compliance," of the *Construction Manual* and the special provisions. The resident engineer is required to ensure that the certificates contain the required information, and that there are certificates for all the iron and steel products that are incorporated permanently into the project. The OSE should spot-check the files quarterly for QA.

If the contractor requests a waiver of the Buy America requirements above the minimal amount that is allowed in the Section 3-605 "Certificates of Compliance" of the *Construction Manual* and the project special provisions, prior approval from the FHWA engineer is required for any Buy America waiver. The FHWA's prior approval can only be granted upon receiving concurrence from the FHWA headquarters in Washington D.C. Buy America waiver has not been delegated to Caltrans or Local agencies. Use of foreign iron or steel on a federal-aid project can make the full cost of the project ineligible for federal reimbursement. Local agencies can not justify the use of foreign iron and steel products by saying they are using their own funds for purchases and installation. Even \$1.00 of federal-aid funds on a project makes the whole project subject to the Buy America requirements.

3-201D Onsite Testing

Acceptance tests must be performed on all other material delivered to the site as required by the Construction Manual and contract documents. The resident engineer is responsible for ensuring that the appropriate number of acceptance testing samples are taken and tested before accepting the work. The local agency's laboratory performs the acceptance tests and forwards the results to the resident engineer. The OSE spot-checks the files quarterly to verify that these procedures are followed in accordance with Caltrans methods and frequencies. The resident engineer must provide documentation showing that the local agency has an approved Quality Assurance Program (only for federal-aid projects) and that all local agency employees, consultant employees and laboratories contracted by the local agency are certified by Caltrans before performing acceptance sampling and tests. When California Test Methods are used, a Caltrans certified Independent Assurance Sampler and Tester certifies Acceptance Testers. Similar to a Caltrans construction project, local agencies and consultants are considered certified if issued a Form MR-0111, "Certificate of Proficiency for an Acceptance Tester by District Independent Assurance staff and are on statewide certified tracking system." When local agencies use test procedures other than California Test Methods, refer to the Caltrans Quality Assurance Program Manual. (See FL-5, "Material Testing Process").

3-201E Specialty, Federal Highway Administration, and Quality Assurance Testing Arrange for QA testing and specialty testing by Caltrans for the local agency as stated in the cooperative agreement. Specialty testing is outlined in Section 6-102F, "Special Samples and Tests," of the Construction Manual. Specialty Tests are materials or foundation tests for special problems or requirements not normally anticipated. Specialty testing should be agreed upon with METS, local agency and resident engineer before the start of construction if possible. QA testing frequency depends on the size of the project and on the history of the local agency's laboratory. If Caltrans laboratory personnel are available, the OSE should schedule the lab to

perform periodic QA checks on the various test methods. For oversight projects, the FHWA samples and tests are considered specialty tests.

3-201F Mix Designs

Asphalt concrete and portland cement concrete mix designs must be acceptable to the Caltrans district laboratory. The contractor's proposed mix design shall be submitted with Form CEM-3101, "Notice of Materials to be Used" to the OSE. Forward a copy of the proposed mix design to the district's laboratory for an acceptability review. The OSE and OSE/OSC (for concrete structures) must review and approve asphalt concrete and portland cement concrete mix designs.

3-201G State Furnished Material

Arrange to have Caltrans provide state furnished material (SFM) as specified in the special provisions and cooperative agreement. The contractor shall submit a materials request to the local agency's resident engineer. The materials request is forwarded to the OSE for processing. Monitor the local agency's payment for SFM when payment is required by the cooperative agreement.

The reimbursement of SFM is tracked by the Division of Accounting in the following manner: The cooperative agreement in conjunction with the designated EA will specify that charges will be billed to the local agency. When SFMs are ordered, the appropriate EA is used. When the Division of Accounting receives the charges to that EA, they will bill the local agency. Discuss establishing the proper EA for reimbursed work charges with the Division of Accounting at the start of the project.

3-202 Construction Activities

3-202A Preconstruction

The resident engineer must inspect contractor activities as specified within the cooperative agreement. Verify that these responsibilities are met. Before the start of work, communicate expectations to the resident engineer through a discussion of contract requirements, enforcement procedures, safety, and other pertinent requirements. Performing the following duties will enable adequate monitoring of the construction administration and inspection activities:

- Complete CL-1, "OSE's Preconstruction Checklist."
- Schedule a meeting with the resident engineer before the resident engineer's preconstruction conference with the contractor. Complete CL-2, "Local Agency and OSE's Preconstruction Conference Checklist" during the meeting.
- Attend the preconstruction conference with the resident engineer and contractor.
- Perform quarterly project record reviews.
- Review the critical path method (CPM) schedule with the resident engineer.
- During active construction work, the project should be reviewed a minimum of every other week. Perform periodic inspection checks, and verify that the local agency's field engineers are inspecting the work according to the guidelines in Chapter 4, "Construction Details," of the Construction Manual. Consistently monitor the work from the start of critical construction operations until it is evident that the provided level of inspection is adequate.

- See the *Bridge Construction Records and Procedures Manual* (BCM), Section 2-19.0 for inspection responsibilities for projects involving structure work.
- Visit the project on a frequency that is commensurate with the magnitude and complexity of the project.
- Take project photos during site visits.
- Use CL-4, "OSE's Construction Contract Administration Checklist."

3-202B Construction Surveying

Construction surveying shall be performed either by the contractor, the local agency or Caltrans depending on the requirements of the cooperative agreement. Construction staking must be done in accordance with the Caltrans Surveys Manual and Staking Information Booklet (Chapter 12 of the Surveys Manual). Provide the appropriate staking request forms if Caltrans is doing all or part of the construction surveying. The district's surveys unit should be notified when any construction surveying is performed by the local agency or contractor so district surveys can perform QA for field surveying. All surveying, construction or otherwise, performed by a local agency or contractor must meet all QC and QA guidelines as established by the district survey unit and right-of-way unit. The district's surveys unit and right-of-way unit should perform a QA review of the Record of Survey maps showing the new right-of-way lines. The setting of right-of-way monuments and filing of the monument maps (Record of Survey maps) with the County Surveyor is the responsibility of whomever prepares the right-of-way maps and legal descriptions. Contact the district's surveys unit and right-of-way unit to determine document types for which they require copies.

3-202C Lane Closures and Traffic Control

The resident engineer shall follow the approval process for lane closures as established by the encroachment permit or as approved. Approve a process that complies with the Caltrans/District requirements. (See FL-7, "Lane Closure Approval Process.") As on Caltrans administered projects, the resident engineer reviews the contractor's lane and ramp closure requests; however, the request should be processed through the OSE to the district traffic manager. On major projects where there may be many lane closure requests, the resident engineer may be asked to work directly with the district's Office of Traffic Management. This may be done only when there is confidence that this task will be done in accordance with processing requirements for lane closures. Non-compliance with lane closure procedures can be cause for suspension of the encroachment permit.

Regularly review the Traffic Management Plan (TMP), lane closures and detours during construction of the project. The time spent reviewing the TMP, lane closures and detours may be reduced when it is determined that the lane closures and detours are being placed in accordance with the TMP and contract requirements, including approved CCOs.

3-202C (1) Construction Zone Enhanced Enforcement Program

Construction Zone Enhanced Enforcement Program (COZEEP) involves hiring the California Highway Patrol (CHP) to help with traffic control in a work zone. On oversight projects, COZEEP can be paid for with state or local agency funds. If state

funds have been provided for COZEEP, it will be stated in the cooperative agreement. Suggest that the local agency obtain a COZEEP agreement if no state funds are allocated for COZEEP, and the cooperative agreement or encroachment permit does not require COZEEP for major projects involving two or more lane closures on freeways and expressways.

If COZEEP will be provided, the CHP should attend the preconstruction conference with the contractor in order to discuss the CHP services and how they will fit with the order of work. The resident engineer should be responsible for inviting the CHP to the meeting. If state funds are allocated for COZEEP, help the resident engineer to coordinate usage of COZEEP. This coordination involves making the resident engineer familiar with CHP internal requirements, constraints and procedures. Review established procedures with the resident engineer to request COZEEP. QA ensures that COZEEP is used properly so that relations with the CHP and the traveling public are not jeopardized.

3-202D Safety

3-202D (1) Caltrans Personnel Responsibilities

All Caltrans QA field staff must read and sign the local agency's Code of Safe Practices before entering the construction site. A copy is retained and placed in the local agency's contract files. If the Code of Safe Practices is not available, the Code of Safe Practices developed for Caltrans employees shall be used. Caltrans employees must follow the requirements of the Caltrans *Safety Manual* on all oversight projects.

Point out work and safety items that do not comply with both Caltrans and the Division of Occupational Safety and Health (Cal/OSHA) standards, and discuss possible remedies with the resident engineer. If there are work deficiencies that are not being resolved, that portion of the work may be suspended by the authority provided within the encroachment permit and cooperative agreement. A meeting between the local agency's public works director or executive director and the district construction deputy director may be required to resolve deficiencies. Work is allowed to resume only after an agreement has been reached.

3-202D (2) Public

The OSE is authorized to stop the contractor's operation wholly, or in part, and take appropriate action when public safety is jeopardized. Caltrans ensures that public safety and convenience is maintained whenever work is performed under an encroachment permit within the state highway right-of-way. This applies to all aspects of the work such as: lane closures, signing, night work, detours, dust control, quality of temporary pavements, crash cushions, temporary railings, pavement transitions, and delineation. Regularly inspects the job sites for safety compliance and possible deficiencies. If any deficiency is observed, then send a written notice to the resident engineer directing the resident engineer to correct the deficiency. Once the deficiency is corrected, a written notice describing the resolution of the deficiency should be sent to the resident engineer and documented in the diary.

3-202D (3) Contractor

The contractor is bound by the conditions and provisions of their encroachment permit and the encroachment permit issued to the local agency. Overseeing contractor safety is the responsibility of the resident engineer. If the OSE has safety

concerns regarding contractor activities, the OSE shall notify the resident engineer immediately.

3-202D (4) Accident and Incident Reporting to the District Office and Headquarters The resident engineer must report all major accidents and incidents within the limits of the project to the OSE immediately. In accordance with established reporting policies outlined in the Section 2-106 "Accident Reports and Investigation" of the *Construction Manual*, report all major accidents and incidents involving the public or construction personnel to the district office. District construction reports all fatalities occurring within the project limits to the Caltrans Division of Construction chief within two hours of the known fatality. Complete Form ES 603-A, "Report to Attorney of Potential Claim" and file the report in accordance with the procedures established by Caltrans/District.

3-202E Water Quality Control

All projects within the state right of way that disturb less than 0.4 HA (1 acre) must comply with the requirements in section 7-101G of the *Standard Specifications* unless contract special provisions require that the project comply with the requirements for the National Pollutant Discharge Elimination System (NPDES) provisions.

All projects within the state highway right-of-way that disturb more than 0.4 HA (1 acre) must comply with water quality control requirements as stated within the NPDES provisions of the Caltrans Statewide Permit. The contractor and resident engineer are responsible for water quality control, with an oversight role from Caltrans. All local agency field personnel must complete the 24-hour Water Pollution Control (WPC)/storm water pollution prevention plan (SWPPP) training in order to conduct their work in a manner consistent with Water Pollution Control (WPC) permit provisions, NPDES Permit requirements and best management practices. Local agency projects are subject to inspections from the Caltrans district water pollution coordinator, storm water task force and the OSE. Verify that the resident engineer is ensuring that all WPC measures are followed as summarized below:

- Verify that the Notice of Construction (NOC) has been submitted to the Regional Water Quality Control Board (RWQCB) before construction for projects with the state right of way covered by Caltrans NPDES permit.
- Verify that the Notice of Intent (NOI) has been submitted to the RWQCB before construction for projects that include work that disturbs more than G.4 HA (one acre) outside the state right of way. NOC and NOI required for certain projects.
- Verify that the resident engineer receives, reviews, and approves a project SWPPP or WPCP in accordance with district policy.
- Verify that no construction activities that have the potential to disturb soil shall start until the SWPPP or WPCP is approved by the resident engineer.
- The OSE reviews and concurs with the SWPPP or WPCP in accordance with district policy.
- The OSE maintains a WPC file that includes confirmation that all critical WPC milestones are met. This file should include the following:

- 1. Transfer of information
- 2. Notice of Construction
- 3. WPC document reviews
- 4. WPC document approvals
- 5. WPC document submittals
- 6. SWPPP Annual Construction Activity Certifications
- 7. Copies of notices, violations and orders
- Verify that the resident engineer has designated a responsible person for conducting WPC inspections.
- Verify that the resident engineer requires the contractor to comply with the WPC requirements.
- Verify that the resident engineer has all SWPPP or WPC deficiencies corrected immediately.
- Cooperate with the RWQCB and other regulatory agencies.
- A copy of the Notice of Construction Completion is forwarded to the OSE for issuance to the RWQCB and a copy to the district construction storm water coordinator.
- Cooperate with the storm water task force.
- If non-compliance continues to occur after formal notification, be prepared to suspend the encroachment permit work except for Water Pollution Control remediation
- After final soil stabilization, a Notice of Construction Completion (NCC) shall be submitted to the RWOCB for projects covered by the NPDES permit.

3-202F Caltrans Utility Services

Most oversight projects involve modification or additions to Caltrans utility service. For example, signal systems and street lighting involve electrical services just as landscape systems involve electrical and water services. Items to check before the start of construction are as follows:

- Upon first reviewing the contract plans, highlight changes and additions to Caltrans utility services.
- For electrical systems, verify the service points with the district electrical specialists, the resident engineer, and the electrical company per district procedures.
- For water systems, verify the service points with the maintenance landscape supervisor or district landscape architect, the resident engineer, and the Water Company per district procedures.

During construction, the service installation, energy, and water bills are usually paid by the local agency or their contractor. When the modifications or additions are completed, the electrical system will be inspected for compliance by the district electrical specialist and the utility company will be authorized to energize the system. Water system connections should be inspected by district landscape maintenance or the district landscape architect before acceptance. Upon acceptance of the contract by the local agency, notify their district electrical and water billing coordinator of the changes or additions to the district utility system. For most new signal or landscape projects, there will be a shared responsibility for the signal system and the landscaping. A maintenance agreement establishes how Caltrans and the local agency share the responsibility. This agreement should be executed before completion of construction and Caltrans accepts control and maintenance of the project.

3-203 Cost Reduction Proposals for Structures

Since all oversight projects are required to use the Caltrans *Standard Specifications* as part of their contract, the local agency's construction contractor can propose Cost Reduction Proposals (CRP's) to potentially reduce construction costs.

From a monetary aspect, CRPs are most viable when the savings in construction costs exceed the costs needed to develop and review the CRP and results in net savings to the project team. CRPs generally become undesirable, however, when the review costs exceed the sponsoring agency's portion of the construction savings.

Section 3-514 of the *Construction Manual* contains general guidelines that explain how to process CRPs. The guidelines do not specifically address the roles, responsibilities, and standards required to process a structure's CRP for an oversight project. This section outlines the roles, responsibilities, standards, and procedures required to obtain design reviews and approvals of structure CRPs in a timely manner. Portions of CRPs that involve non-structure items follow district procedures for review, input, and technical approval and FHWA approval requirements for CRP CCO.

3-203A Roles and Responsibilities

The roles and responsibilities for developing and processing a structure CRP are outlined below.

3-203A (1) Contractor

- Conceptualizes and proposes CRPs.
- Develops the documents needed to support and construct the change.
- Provides the design engineering construction support associated with the change.
- Performs the construction work of the change.

3-203A (2) Resident engineer

- For the purposes of this section, it is assumed the resident engineer also performs the duties of a structure representative as outlined in the *Construction Manual*.
- Local agency's point of contact.
- Leads, coordinates and facilitates interaction for the overall CRP development, input, and reviews with the contractor, the OSE, OSE/OSC, and Office of Special Funded Project (OSFP) liaison engineer.
- Reviews CRPs for feasibility, constructability, and compliance with the construction contract.

- Determines if a CRP is cost effective.
- Provides the final CRP approval in the form of a contract change order.

3-203A (3) Structures – Office of Special Funded Project (OSFP) - Liaison Engineer

- Caltrans lead for structure CRP review and concurrence.
- Provides input relative to feasibility and cost effectiveness of the proposed CRP.
- Obtains reviews and concurrence from local agency's consultant designer.
- Obtains reviews and concurrence from the necessary Division of Engineering Services (DES) units.
- Performs QA of local agency's design consultant review and concurrence, and resident engineer's reviews and approvals.
- Performs reviews for conformance to Caltrans standards.
- Provides the final design concurrence.

3-203A (4) Caltrans Project Manager

- Performs any necessary communication and coordination with sponsoring agencies and ensures project objectives are met.
- Works with the local agency to revise the cooperative agreement, especially reimbursing Caltrans for CRP review costs.

3-203A (5) Local Agency

- Provides concurrence with the CRP changes and the impacts on project costs and schedules.
- Makes the engineer of record available to review CRPs.
- Reimburses Caltrans for review costs.
- Ensures CRPs make sense from a total project cost perspective, which includes deductions of review costs from the local agency's portion of the direct construction cost savings.

3-203A (6) Local Agency's Designer of Record

- Attends CRP meetings.
- Reviews and concurs on feasibility and cost effectiveness.
- Reviews for structural integrity and ensures conformance to project design standards.

3-203A (7) OSC/OSE

- Reviews concepts and designs for feasibility, constructability, cost effectiveness, and conformance to construction standards.
- Verifies the resident engineer's procedures to ensure that the interests of Caltrans are adequately addressed.
- Ensures that the resident engineer or structure representative is performing the necessary coordination with the OSFP liaison engineer.

3-203A (8) OSE

- Acts as a main point of contact for Caltrans.
- Provides written approval to allow a CRP change to the approved Plans, Specifications, and Estimate (PS&E).

3-203B Development and Review

The *Construction Manual* discusses stages of CRP development, which can be summarized as follows:

- Conceptual Proposal
- Preliminary Proposal
- Complete Proposal

CRP development must proceed through the incremental stages shown above. In each stage, the contractor develops and submits proposals to the resident engineer for input and review. Once received, the resident engineer must review the proposal to make sure it is thorough and complete before forwarding to OSE, OSC/OSE, and OSFP liaison engineer for input and review.

CRP development should not proceed to the next stage until concurrence is obtained from the OSE, OSC/OSE, and OSFP liaison engineer. Through all stages, the resident engineer should arrange meetings with the contractor, OSE, OSC/OSE, OSFP liaison engineer, designer of record, and other essential representatives to discuss and resolve issues.

The CRP development stages are outlined below.

3-203B (1) Conceptual Proposal

The conceptual proposal stage begins when the contractor informs the resident engineer of the possibility of pursuing a CRP and the general parameters the CRP will involve. The resident engineer should obtain the following parameters from the contractor:

- The potential structural changes
- The reasons for potential changes
- The identity of the designers who will the develop the CRP
- The identity of the designers who will provide construction support for the changes
- The probable timeline desired to implement the change

If the resident engineer considers the CRP to be a viable option, the resident engineer meets with the OSE and OSC/OSE to discuss the CRP. The resident engineer can not approve the CRP. The cooperative agreement requires that the OSE review and agree with all design and specification changes in advance of the contractor performing the work.

It is a violation of Section 2-1.056 of the *Standard Specifications* and the cooperative agreement for a contractor to use the designer of record to prepare the CRP. If the contractor proposes to use the designer of record to prepare the CRP, the

OSE returns the CRP to the resident engineer. Written notification that Caltrans will not take further action on the CRP until the local agency and contractor comply with the cooperative agreement and contract will be sent to the contractor by the resident engineer.

After the meeting if the OSC/OSE has found the information thorough and complete, the OSC/OSE sends the CRP to OSFP liaison engineer.

The OSFP liaison engineer reviews the CRP to ensure the following:

- The proposal is structurally feasible, cost effective, and has merit.
- The local agency's designer of record concurs with the proposal and is available to perform reviews in a timely manner.
- The DES units agree with the proposal.
- The local agency is willing to reimburse Caltrans for CRP review costs and agrees with any contract schedule changes.

As a part of the conceptual proposal stage, the resident engineer should lead a meeting with the OSE, OSC/OSE, OSFP liaison engineer and contractor to discuss the concept and different considerations involved in developing the CRP further. If the project is a federal-aid project, the FHWA engineer shall be invited to attend the meeting. The meeting should address the following items:

- Design criteria the most current design standards and practices are required
- Reports and documents that the contractor has to prepare
- Review times
- Schedule for further CRP development
- Estimate of construction cost savings
- Estimate of the Caltrans reimbursed work costs required for review concurrence
- FHWA approval requirements

If after the meeting, a decision is made to go forward with the CRP, all Caltrans review and concurrence costs for the CRP following the meeting is considered reimbursed work. The OSE prepares an "Advance Deposit Application" (ADA) to cover the Caltrans reimbursed costs until the cooperative agreement is amended. Caltrans and the local agency execute the ADA and the local agency deposits an amount equal to the Caltrans estimate of costs for review and concurrence of the CRP. Caltrans personnel shall not proceed with any work on the preliminary proposal without execution of the ADA and receipt of the advance deposit.

3-203B (2) Preliminary Proposal

The preliminary proposal stage begins when the contractor further develops the concept, identifies all changes and shows the changes have merit in design and construction. In this stage, the contractor must submit the following:

- Sufficient preliminary details that show the construction work needed to implement the change
- Sufficient preliminary analysis that shows the general design approach and the general affects on all pertinent structures elements

Analysis of CRP estimated cost and net savings.

The contractor must develop the preliminary proposal up to the point of commencing final design. As part of the preliminary proposal stage, the contractor will prepare final and complete design analysis and details.

The resident engineer will coordinate the review and concurrence from the designer of record. Resident engineer shall send the OSE, OSC/OSE and the OSFP liaison engineer the designer of record concurrence prior to them beginning their review of the contractor's preliminary proposal. OSFP liaison engineer will be responsible for coordinating the review and concurrence from the pertinent DES units.

Reviews must be conducted by the resident engineer, OSE, OSC/OSE, and the OSFP liaison engineer.

When reviewing the preliminary proposal, check for the following:

- 1. Changes that are structurally adequate, based on the proper parameters, are constructible, and will conform to standards
- 2. Necessary supporting reports and documents, including plan details, calculations, foundation reports, and hydraulic reports
- 3. Concurrence from the designer of record and pertinent DES units
- 4. The CRP will result in a net saving after review costs are considered.

3-203B (3) Complete Proposal

The complete proposal must contain details, calculations, specifications, foundation reports, hydraulic reports, an estimate of the construction cost savings and other documents necessary to support the change. All documents must conform to the requirements outlined later in this section.

The complete proposal must be reviewed by the resident engineer, OSFP liaison engineer and others to determine the acceptability of the CRP. The OSFP liaison engineer coordinates design reviews through the designer of record and performs the required QA.

3-203C Structure Related CRP Design Documents

Structure design documents shall be developed by the contractor to support the CRP. The documents must meet the same quality standards as required in the CRPs section of the OSFP Information and Procedures Guide as structure PS&E documents and supporting documents. Documents may include, but are not limited to, plan details, specifications, quantity calculations, structure calculations and independent check calculations, foundation reports, and hydraulic reports.

Documents that do not meet the standards are returned to the contractor and further reviews shall not proceed until documents of sufficient quality are submitted.

The exact documents required from the contractor for the different submittals depend on the scope of the proposed change and must be determined by the resident engineer with input of the OSFP liaison engineer and others who will perform reviews.

The approximate number of documents required by the OSFP Liaison Engineer and approximate review times for the different proposal stages can be found in the CRPs section of the OSFP Information and Procedures Guide.

Chapter 4 Project Completion

Section 1 Encroachment Permit and Cooperative Agreement Completion

The local agency is required to notify Caltrans when the requirements of the encroachment permit and cooperative agreement have been met. Although the contractor was issued an encroachment permit, this does not constitute contract acceptance by Caltrans. There is only a satisfactory completion of the encroachment permit requirements by the local agency and the contractor. The encroachment permit and cooperative agreement requirements are typically fulfilled when the following conditions are met:

- Construction is completed in full compliance with the cooperative agreement and encroachment permit.
- All required encroachment permit and cooperative agreement project documentation are delivered to Caltrans.
- All necessary highway right-of-way is conveyed to the state.
- Maintenance agreements have been completed and executed.
- Notice of Construction Completion (NOCC) has been submitted to the Regional Water Quality Control Board (RWQCB) once construction for projects covered by the NPDES permit is completed.

The general provisions of the encroachment permit require the permittee to notify the Caltrans representative when work is completed. Completing Form TR-0128, "Notice of Completion Card", provides notification. The final inspection of the project is made within one week of notification. If the local agency has not complied with all terms and conditions of the encroachment permit, inform the permittee of the discrepancies and request corrections. On all projects, corrections shall be detailed in writing.

Before acceptance of the construction contract by the local agency, it is recommended that representatives from Caltrans, the local agency, and the contractor conduct a semifinal inspection of the project. Completing the semifinal inspection before the contractor has demobilized and left the project ensures that the contractor can address any discrepancies that are found by Caltrans or the local agency. For the contractor to remobilize can be costly.

Completion of construction of the project does not imply that the responsibilities of the local agency and contractor have been fulfilled for closing out of the encroachment permit. All required project documentation shall be submitted and acceptable to Caltrans before closeout of the encroachment permit. All new encroachment permits will include a maximum time period for the local agency to submit required project documentation after the local agency's construction contract acceptance. For oversight projects without a cooperative agreement, it is 30 calendar days. Oversight projects, with a cooperative agreement, it is 90 calendar days for projects with less than 300 plan sheets, and 180 calendar days for projects with 300 or more plan sheets.

Failure of a local agency to provide required project documentation within the timeframe required in the encroachment permit shall lead to Caltrans requiring the

local agency to provide construction contract administration documents bond on future oversight projects. Report local agencies that fail to provide the required project documentation, within the required time frame after completion of the project, to the district as-built coordinator, project manager, district permits engineer and district construction. The information is kept on file with district project management for use in determining which local agencies are required to provide construction contract administration documents bond on future oversight construction projects. Once a local agency has submitted the required project documentation, it is at the discretion of the District Director to remove the local agency from the list.

Depending on the requirements of the project cooperative agreement and encroachment permit, required project documentation may consist of the following:

- Requested contract records (See Section 5.2, "Federal-aid Projects" for additional contract records required for federal-aid projects.)
- Survey and right-of-way documents requested by district survey and right-ofway offices
- As-built plans
- Microfilms
- Warranties
- Maintenance agreements
- Structure construction records *

*Note: The Office of Structures Construction required project documentation must be processed by the OSC/OSE in accordance with the *Bridge construction Records and Procedures Manual*. See BCM 2-19.0 for job acceptance records required by the Office of Structure Construction and the corresponding submission responsibilities when the project includes structure work.

When the work authorized by the encroachment permit and cooperative agreement has been satisfactorily completed, return completed Form TR-0129 "Completion Notice" to the district encroachment permit engineer's unit. Forward the project file and the required project documentation to the district's construction document coordinator for archiving. Ensure that copies, or originals, of selective required project documentation are distributed to the appropriate district units within the established times.

4-101 Projects with Documents Bond

Failure by the construction management consultant or local agency to provide required project documentation shall result in the local agency's documents bond being held. Form CEM-1101, Documents Bond, lists the documentation the local agency is required to provide in order for their documents bond to be released. The bonding company shall be notified when the local agency has not delivered the required project documentation within the time frame set in the encroachment permit. Upon receiving satisfactorily completed required project documentation, as listed on the documents bond form, the local agency's documents bond shall be released.

Section 2 Federal-aid Project

In addition to the encroachment permit and cooperative agreement project completion requirements outlined above, all federal-aid projects shall follow the project completion procedures outlined in Chapter 17, "Project Completion" of *the Local Assistance Procedures Manual*, except for the changes noted below:

- The OSE assumes the duties of the District Local Assistance Engineer (DLAE) except as noted.
- For all federal-aid projects, the resident engineer shall submit the "Local Agency Final Inspection Form" (Exhibit 17-C LAPM) to the OSE.
- For nonexempt projects, complete and submit the FHWA Form 1446C "Final Inspection of Federal-aid Project" (Exhibit 17-B LAPM) to the FHWA engineer.
- For nonexempt projects, the resident engineer will send a copy of the proposed final estimate right after it is sent to the contractor. Send the CL-5 "FHWA Final Acceptance Checklist for Federal-aid Projects" and other required forms on the checklist to the FHWA engineer with a copy of the proposed final estimate. Send updates to the information on the CL-5 to the FHWA Engineer during the project completion process.
- For all federal-aid projects, submit Final Report of Utilization of Disadvantage Business, Exhibit 17-F LAPM, to the DLAE.
- For all federal-aid projects over \$1 million, on the National Highway System, the contractor is required to complete and submit Form FHWA 47 to the resident engineer. The resident engineer will review for reasonableness, accuracy, and forward to the OSE. Forward Form FHWA 47 to district construction for processing and to the FHWA engineer with the CL-5.
- Once all the claims are settled, and the local agency has made the last payment to the contractor, the resident engineer will submit the "Final Report of Expenditures" (Exhibit 17-M LAPM) to the OSE.
- For all local federal-aid projects, send to the DLAE the "Report of Expenditures" for processing.
- For all federal-aid STIP projects, send to the STIP project coordinator the "Final Report of Expenditure" (Exhibit 17-M LAPM) for processing.
- The resident engineer shall furnish a full set of as-builts as outlined in the cooperative agreement.
- "Report of Completion of Structures" (Exhibit 17-J LAPM) will not be used. Instead see BCM 2-19.0 for job acceptance records required by the Office of Structure Construction and the corresponding submission responsibilities when the project includes structure work.

Section 3 Relief from Maintenance and Responsibility

When a local agency administers a construction contract and uses Caltrans' *Standard Specifications* as part of the contract documents, they will include the following or similar language in their contract special provisions:

Standard Specification: The 1999 edition of the Standard Specifications of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office, or officer shall be interpreted to refer to the LOCAL AGENCY or its corresponding agency, office, or officer acting under this contract.

By including the above special provision, or similar language, the authority to grant "Relief from Maintenance and Responsibility" is transferred from the executive officer of the Department of Transportation to the executive officer of the local agency. The local agency has the contract with the contractor not Caltrans. Consequently, the local agency, not Caltrans, is automatically responsible for maintenance of the segment the local agency accepted. Standard language, or similar, in cooperative agreements states:

Upon completion and acceptance of the PROJECT Construction contract by LOCAL AGENCY to the satisfaction of the STATE representative and subsequent to the execution of a maintenance agreement, STATE will accept control of and maintain, at its own cost and expense, those portions of PROJECT lying within STATE'S right-of-way, except local roads delegated to LOCAL AGENCY for maintenance.

By the terms of the cooperative agreement, the state will only accept control and maintenance when:

- The construction contract is completed in its entirety and the contract is accepted by the local agency.
- The state representative is satisfied with the finished project.
- A maintenance agreement with the local agency exists.

The local agency may grant "Relief from Maintenance and Responsibility" to the contractor for a segment of contract limits, however, the local agency will still be responsible for maintenance and retains responsibility of that segment unless the three bullets noted above have been satisfied. An encroachment permit rider may be issued to alter the original scope of the encroachment permit to allow Caltrans to accept control and maintenance of that segment prior to satisfying the three bullets.

Section 4 – Local Agency's Job Records

When Caltrans requires the local agency to hold contract files, the retention period will be referenced in the cooperative agreement. For federal-aid projects, local agency construction contract project files are to be retained a minimum of three years after the final reimbursement or payment by Caltrans to the local agency. For additional information on federal record retention requirements, refer to Section 5.7, "Audit of Local Agency Expenditures" in the LAPM.

Chapter 5 Liability

Section 1 General Requirements for Liability Insurance

The encroachment permit general provisions and the cooperative agreement hold the permittee responsible for all liability, personal injury and property damage. When required, the applicant shall show evidence of liability insurance before issuance of the encroachment permit. A company authorized to transact business in the State of California must provide the insurance.

When liability insurance is required, the applicant shall furnish an endorsement to the policy naming Caltrans, its officers and employees as "additional insured." Professional liability exclusion is standard in insurance policies. This provides the state with adequate protection against foreseeable risks as additional insured.

Section 2 Tort Liability

Upon completion of an oversight project, Caltrans accepts tort liability related to the completed facility. For this reason, local and private sponsors of state highway projects must conform to Caltrans standards and practices. Each district is required to provide sufficient resources to assure quality assurance.

Local and private entities sponsoring state highway improvement projects need to cooperate with Caltrans in identifying deficiencies in physical facilities and operations to minimize the possibility of tort suits.

Section 3 Non-Contractor's Claims

Other types of claims, which may be encountered on oversight projects, are classified into the following two primary categories.

5-301 Public Claims by Persons Not Related to the State

Claims less than \$100,000 that are made against a permittee or Caltrans for permitted work are to be referred to the district claims unit. Claims more than \$100,000 that are made against a permittee or Caltrans for permitted work are to be referred to State Board of Control. Contact district claims unit for procedures to process a claim.

5-302 Caltrans Claims Against a Permittee

Most claims made by Caltrans encroachment permit offices are related to incomplete or unacceptable work by a permittee, and are claimed or billed against bonds. Caltrans legal staff manages actual legal or court action against the permittee (local agency or contractor). The district construction coordinator should be informed when legal or court action is taken against a permittee.

Chapter 6 Charging Practices for Oversight Projects

Section 1 Cooperative Agreements

Oversight staff shall charge to the district the project is located in, and to the expenditure authorization (EA) for the project, followed by the corresponding activity code. Local agencies can request Caltrans to perform reimbursed work on the project. Before performing any or allowing any reimbursed work, check the cooperative agreement for reimbursable staffing costs and authorization. In addition, determine if the EA is coded for reimbursed work. Oversight staffing allotment will be based on the terms of the cooperative agreement, construction cost and type of project.

Section 2 Permits

Encroachment permit fees associated with oversight projects are defined within the cooperative agreement. The local agency's construction permit and the contractor's double permit are issued "fee-exempt," unless stipulated otherwise within the cooperative agreement. By State Statute, Streets and Highway Code 671.1, "Fees," public corporations are exempt from encroachment permit fees. The local agency's contractor may be billed for the inspection time on their encroachment permit if stipulated within the cooperative agreement. When required by the district encroachment permit engineer, Form TR-0130, "Encroachment Permit Report" is submitted to the district encroachment permits unit for processing. All expended time shown on the Encroachment Permit Report shall agree with the Progress Billing/Completion Notice and the inspector's time sheet (TOPSS) to accurately determine the true cost recovery for the project, if any.

On oversight projects with construction costs greater than \$300,000 and less than \$1 million, inspection time is charged to that project EA. On projects where no EA is assigned, inspection time is charged against the Encroachment Permit EA and the appropriate subjob classification, "3EPIC" for QA. Expended time reported against a project shall coincide with time reported in TOPSS.

Chapter 7 Oversight Staff Relationships

Communication protocol for the construction phase of the oversight project is established before the start of work. Communications between the local agency representatives, Caltrans staff, (FHWA engineer on federal-aid projects) and the contractor is based on the terms of the cooperative agreement, encroachment permits, contract, and these guidelines. These terms and requirements result in communication channels different from typical state sponsored and administered projects. (See FL-8, "Communication Channels Flow Chart.")

Section 1 Local Agency, Resident Engineer, Oversight Engineer and Contractor

The following are the ground rules for communication:

- Communicate with the local agency's person in "Responsible Charge," the local agency's resident engineer, and construction management team.
- Do not conduct business with the contractor. The contractor has a contract with the local agency, not with Caltrans. Therefore, Caltrans does not have the authority to direct or communicate with the contractor except for emergencies or urgent safety concerns when the resident engineer or staff are not present.
- The contractor communicates with the local agency's resident engineer.
- If established, the resident engineer may communicate directly with METS and district traffic management. All other communication with Caltrans shall be done through the OSE.
- If it's approved, consultant designers may communicate directly with the Caltrans oversight design staff in order to initiate timely design change review and concurrence.
- The resident engineer may contact the district traffic manager and radio room directly for lane closure reporting and for emergencies prior to contacting the OSE.
- For high profile projects or other projects with a lot of public interest, make sure the district public information officer is provided the project status on a regular basis and the resident engineer's completed Form CEM-0101, "Resident Engineer's Report of Assignment."
- If partnering is established by the local agency, Caltrans staff shall make themselves available for the partnering meetings.
- The OSE may participate in the local agency's claim process only if Caltrans district management concurs.

Section 2 Federal Highway Administration

The Federal Highway Administration (FHWA) has the authority and responsibility to implement and monitor federal laws, regulations and executive orders. When a project involves FHWA federal funding or requires FHWA approval action, or is on a federal-aid highway system, FHWA should become involved in accordance with

the stewardship agreement(s) signed with Caltrans. When the project requires a permit from any federal regulatory agency, FHWA becomes involved in the process either as the lead federal agency or as a co-lead agency if FHWA funding or approval action is required.

7-201 Stewardship and Delegation of Authority

Stewardship is the process by which federal program responsibility and accountability are delegated to state transportation agencies to act as stewards over those federal functions. Passage of the ISTEA significantly changed the transportation business, and allowed the FHWA to exempt Caltrans from the FHWA review and oversight for many engineering activities on federal-aid projects. To address the major changes brought about by the ISTEA and the TEA-21, the FHWA and Caltrans executed a stewardship agreement. The stewardship agreement details the acceptance of the maximum degree of authority available to Caltrans. In addition, Caltrans agrees to act as stewards for project review, oversight, and administration of the FHWA federal-aid highway projects. The stewardship agreement between FHWA and Caltrans can be found by visiting the budgets Website: http://onramp/hg/budgets/library.htm

Passage of the ISTEA delegated additional authority to Caltrans for approval and administration of the FHWA's Federal-aid Transportation Program. Caltrans has sought and accepted FHWA responsibilities to the maximum delegation of authority level allowable. By accepting the additional responsibilities on projects for which authority has been delegated, Caltrans assures that projects exempt from the full oversight requirements of the FHWA are developed and administered to meet federal required procedures and standards.

7-202 Delegations Withheld

The FHWA retained authority and withheld delegation of the following Title 23 United States Code (USC) engineering activities:

- Certain interstate system projects
- Changes in new or revised access points to the interstate system
- Exceptions to the 4.9m vertical clearance requirement on the single route system
- Buy America requirement approval
- Exception to mandatory design standards on nonexempt projects

Caltrans does not have approval authority for those non-engineering activities not covered by Title 23 of the United States Code (National Environmental Policy Act [NEPA], right-of-way, and civil rights among other activities).

7-203 Project Oversight

The FHWA is responsible for those non-engineering activities not covered by Title 23 of the United States Code (National Environmental Policy Act [NEPA], right-of-way, and civil rights among other activities) for all federally funded projects. The FHWA's involvement should begin early in the project development process and continue until the project is completed. The degree of the FHWA review and oversight for a specific project should be established as soon as possible. The FHWA may review and oversight a specific project entirely, either in part, or not at

all. Once the degree of the FHWA review and oversight is established, the project will be subject to federal involvement as detailed in the stewardship agreement.

The degree of the FHWA review and oversight for a specific project is determined by the following project definitions and flowchart:

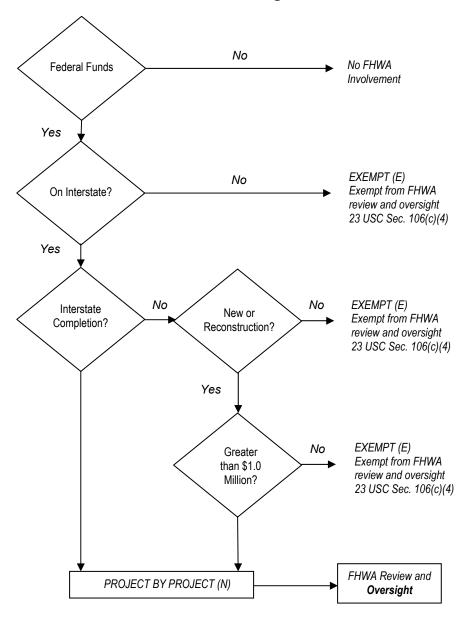
New

1. New transportation facility that did not exist before in the corridor, or as the addition of an interchange

Reconstruction

- 1. The addition of a mainline through lane (except climbing and auxiliary lanes)
- 2. A significant change in horizontal or vertical alignment
- 3. Reconstruction of an interchange by adding moves or relocating ramps
- 4. Replacement of an entire bridge or the major parts of an existing bridge so that it is effectively a new bridge on new vertical or horizontal alignment
- 5. Seismic retrofit projects for the following:
 - ➤ Major or unusual structures as defined by Federal Aid Policy Guide (FAPG) G 6012.1 at Website:
 - http://www.fhwa.dot.gov/bridge/unusual.htm
 - ➤ Construction costs more than \$5 million per structure
- 6. Major modifications to Traffic Management Centers
- 7. Full depth pavement reconstruction

FHWA Oversight



Federally funded projects are classified as either nonexempt or exempt to indicate the Federal Highway Administration (FHWA) oversight requirements as stated in the stewardship agreement between FHWA and Caltrans. Caltrans assigns project numbers to federally funded projects, and upon receiving a classification from the FHWA, adds a suffix "N" or "E" to the project number. Nonexempt projects (suffix "N") are subject to the full oversight requirements of the FHWA. Exempt projects (suffix "E") are exempt from the full oversight requirements of the FHWA.

7-204 Events invoking the involvement of the FHWA on nonexempt projects

Several events (outlined in Section 5-007 "Federal Highway Administration Involvement in Contract Administration" of the *Construction Manual*) that occur during the construction phase of a nonexempt project, may make the involvement of the FHWA necessary. The OSE and resident engineer (and the local agency's person in "Responsible Charge" if the resident engineer is a consultant) should meet with their FHWA engineer immediately following award of the contract to determine when the involvement of the FHWA is necessary. The FHWA engineer is contacted sufficiently in advance of any project event deemed necessary to allow their participation. In all other cases, contact the FHWA engineer as soon as practical to ensure federal concurrence and participation. It is expected that as part of any AAA by a local agency on an "N" project, Caltrans will need to work closely with FHWA in developing formal documentation (agreement) in which Caltrans recommends and submits to FHWA for review and approval that the local agency is capable of doing the AAA. This is a FHWA requirement on a case-by-case basis for "N" projects.

7-205 Contract Change Orders Requiring FHWA Prior Approval

The Resident Engineer is to follow the producers outlined in Section 5-308 "Federal Highway Administration Contract Change Order Requirements" in the *Construction Manual*. Review the contract change order records periodically to assure compliance with the federal requirements. Also review and follow the procedures outlined in Section 4-107 "Contract Change Orders" of these guidelines

In addition to the major contract change orders requiring federal approval (listed in Section 5-308 of the *Construction Manual*) local agencies can also do change in scope change orders. FHWA approval is required on exempt projects for scope changes involving scope of the work, changes to project termini, and changes to the scope of the environmental approval, including mitigation commitments and permit requirements. The resident engineer should follow the procedures in Section 5-308 and 4-107 for changes in scope change orders, except Headquarters Construction, approval is not required.

Section 3 Design Coordination

Typically, a design consultant under the administration of the local agency prepares the plans and specifications for oversight projects. For oversight projects with construction costs greater than \$1 million, the plans are reviewed and approved by a Caltrans oversight design engineer in the district's design division. If the project includes structure work, the structure portion of the plans are reviewed and approved by a Caltrans structure liaison engineer in Engineering Services, Office of Special funded Projects (OSFP). The oversight project engineer and structure liaison engineers are responsible for design oversight and construction support. For oversight projects with construction costs less than \$1 million, oversight design responsibilities are coordinated through the district encroachment permits offices. In either case, changes to the plans during construction must be agreed to by the appropriate oversight design engineers responsible for oversight during the design phase.

Chapter 8 Deficient Contract Administration and Sanctions

As outlined in earlier chapters, the main function of the OSE is to verify that the local agency's resident engineer is properly administering the project in conformance with the plans, specifications, cooperative agreement and encroachment permit. Perform this role by exercising the authority given in the cooperative agreement and encroachment permit. The cooperative agreement authorizes Caltrans to accept or reject the work, order any actions needed for public safety and the preservation of property, and ensure compliance with all provisions of the encroachment permit and cooperative agreement. Do this by periodically reviewing the project site and the contract records.

Section 1 Federal-aid or State Funded Project

If it is found that the resident engineer is not performing required duties, even after several meetings (usually three) discussing the deficiencies with the resident engineer and the local agency's person in "Responsible Charge," the OSE reports the situation to the Deputy District Director for Construction (DDDC). The DDDC shall then contact the local agency's Public Works Director or Executive Director to seek a solution to the problem. If the DDDC finds that the local agency has not corrected the deficiencies in a timely manner, DDDC shall request the Division of Accounting to impose one of the following sanctions on the local agency, depending on the severity and circumstances of the deficiencies:

- Freeze progress payments for the federal-aid or state funded project until the deficiencies are corrected.
- Withdraw a percentage of federal or state funds from a project.
- Withdraw all federal or state funds from the project.

8-101 STIP, SHOPP and IIP projects

To freeze progress payments for STIP, State Highway Operation and Protection Program (SHOPP) and Interregional Improvement Program (IIP) projects, submit to the project manager assigned to the project, a request to return future invoices for the project to the local agency along with a detailed explanation of the reasons why the invoices are to be returned unpaid. Copy of the request should be sent to the resident engineer.

8-102 Local Federal-aid Projects

To freeze progress payments for local federal-aid projects such as Surface Transportation Program (STP), Congestion Mitigation Air Quality (CMAQ), Demo (pork-barrel) and other funds, e-mail or fax a request to return future invoices for the project to the local agency and a detailed explanation of the reasons why the invoices are to be returned unpaid to District Local Assistance Engineer.

8-103 Both Cases

In both cases, send notification to resume payment of the invoices immediately after deficiencies have been corrected. Also, send copies of the requests and notifications to the FHWA engineer (for all federal-aid projects), the headquarters construction coordinator, and to the local agency's Public Works Director or Executive Director.

The local agency should be told that they can appeal the withholding of funds through the headquarters construction coordinator.

To withdraw a percentage of all of the federal or state funds from a project, the DDDC should contact their headquarters construction coordinator for guidance.

Caltrans is required to act on FHWA's behalf on federal-aid projects as part of the stewardship agreement between Caltrans and the FHWA. Under the stewardship agreement, Caltrans agreed to be responsible for assuring that federal-aid projects are administered to meet federal-aid-required procedures and standards. Allowing the local agency to violate federal requirements can result in the FHWA withholding federal funds from Caltrans who in turn would have to withhold funds from the local agency. FHWA goes through Caltrans as the responsible agency for funds payment or retention.

This requirement also applies when a local agency is receiving state funds. If a local agency is violating the state legislative requirements for those funds, Caltrans must ensure that the local agency uses the funds as required or takes back the funds from the local agency.

Whether or not sanctions are imposed against a local agency, the local agency shall be expected to develop and implement an action plan to correct deficiencies. Local agencies will be given adequate time to develop and implement their action plan. Failure to quickly correct deficiencies by the local agency is grounds for imposing additional sanctions.

The DDDC is asked to keep their headquarters construction coordinator informed about problems they are having with local agencies not abiding by federal or state requirements.

Section 2 Oversight Project

Oversight projects with an estimated construction cost of \$1 million or more in the state highway right-of-way, are constructed under the terms of a cooperative agreement or Highway Improvement Agreement for private entity sponsored project and encroachment permit. Oversight projects with an estimated construction cost of less than \$1 million will generally be constructed only under the terms of an encroachment permit. Certain project types such as those involving signal construction, landscaping, or soundwalls, with an estimated construction cost of less than \$1 million, may still require a cooperative agreement.

8-201 Encroachment Permit

As stated earlier, a local agency is granted permission to enter onto the state right-of-way and construct an approved facility under the encroachment permit. The encroachment permit is a valid contract between the local agency and Caltrans. Under the encroachment permit, Caltrans has the right to revoke the encroachment permit for violation of the encroachment permit conditions, special provisions, or other stipulated requirements. Without an encroachment permit, the local agency and their contractor are required to suspend all work on the project site. Any work Caltrans does to put the project site back into a safe operating condition or restore it to the original condition, will be billed to the local agency, the local agency's contractor, and the contractor's bonding company depending on the circumstance involved in the encroachment permit being revoked. The local agency and their

contractor can be required to provide additional bonding, to deposit additional funds, and to pay additional fees in order for the encroachment permit to be reissued.

Before revoking the encroachment permit, meet with the resident engineer to discuss the issues, ask for an action plan to correct any deficiencies, and discuss possible Caltrans action if the deficiencies are not corrected. If the resident engineer does not correct the deficiencies after several meetings (usually 3), contact the local agency's person responsible for the encroachment permit, and discuss the situation. The OSE should discuss the situation with the DDDC and the district encroachment permit engineer before having the encroachment permit revoked.

8-202 Cooperative Agreement

As stated earlier, a cooperative agreement is a legally binding contract between Caltrans and a local agency. For those projects administered by a local agency, the following language (or similar language) is included in the cooperative agreement:

Local Agency Agrees: To ensure that contract administration procedures shall conform to the requirements set forth in State's Construction Manual, Local Assistance Procedures Manual, Project Contract Documents, and the Encroachment Permit for construction of the Project.

The local agency has agreed that construction contract administration shall follow Caltrans requirements. The following (or similar) language is included in the cooperative agreement if the local agency does not want to conform to the Caltrans construction contract administration requirements:

If the Local Agency violates the terms and conditions of the Project construction encroachment permit, the State may require the Local Agency, at the Local Agency expense to return to its original condition or to a condition of acceptable permanent operation. If the Local Agency fails to do so, the State reserves the right to finish the Project or place the Project in satisfactory permanent operation condition. The State will bill the Local Agency for all actual expenses incurred and the Local Agency agrees to pay said expenses within 30 days using the Local Agency funds or the State acting through the State Controller, may withhold an equal amount from future apportionments due the Local Agency from the Highway User Tax Fund.

Worst case, Caltrans can take over a project and complete it, then be reimbursed with gas tax funds that were due the local agency. Most local agencies would find this scenario unappealing. Discussing the various options and the possibility of withholding or canceling federal-aid funds should persuade the local agency and the resident engineer to conform to Caltrans requirements.

8-202A Discontinue Services of Resident Engineer and Staff

If the resident engineer, or staff, is not following Caltrans construction contract administration procedure as agreed to in the cooperative agreement. Caltrans can ask for removal of the resident engineer or staff. The following language (or similar language) is included in the cooperative agreement:

Local Agency agrees to consider any request by State to discontinue the services of any personnel considered by State to be unqualified on the basis of credentials, professional expertise, and failure to perform in accordance with the scope of work and/or other pertinent criteria.

Before requesting removal of the resident engineer, or staff, meet with the resident engineer to discuss the issues, ask for an action plan to correct the deficiencies, and discuss possible Caltrans action if the deficiencies are not corrected. If the resident engineer does not correct the deficiencies, contact the local agency's person in responsible charge and discuss the situation. Also, discuss the situation with the DDDC before requesting removal of the resident engineer or staff.

CL-1 Oversight Engineer's Preconstruction Checklist

NOTE: Enter N/A for any items not applicable to this project Dist/Co/Route/KP _____ Local Agency _____ Location Type of Work *Federal-aid Project: Yes No No Federal-Aid Project No. N or E Contract Amount \$ Structures Work: Yes No No **Contacts** (Enter those that are applicable to the project) Phone Number Local Agency contact _____ Structures Construction contact Structures - Office of Special Funded Projects contact District Project Management contact District Design Oversight Engineer contact _____ District Maintenance contact District Traffic Operations contact _____ (___) ____-District Traffic Management Center contact District Materials Lab contact District Construction Safety contact _____ District Labor Compliance contact _____ District Public Affairs contact _____ (___) _____ District Survey Office contact _____ (___) ___-District Right of Way engineering contact _____ (___) _____ *FHWA Engineer contact _____ (___) ___-__ **Cooperative Agreement** ____ Yes ___ No Copy of cooperative agreement for construction phase received? Cooperative agreement number ____ Yes ____ No Does cooperative agreement include reimbursed work? Is Caltrans required to provide state-furnished materials? Yes No **Accounting Procedures** Does the contract have a Caltrans EA? If yes, has project development activated the construction phase "3" EA? If Caltrans is to provide reimbursed services, has the EA been activated ____ Yes ____ No for reimbursed work? Yes No Are state funds included in the project? If yes, district contract person responsible for approval for funds transfer to local agency:

NOTE: Contact the person responsible for approving funds transfers to establish a procedure to get concurrence before funds transfer.

Type of Encroachment Permit Issued			
Local agency	Expiration date		
rivate interest Expiration date			
Contractor permit	Expiration date		
Contractor bond expiration date			
Permit Riders (Note: If a rider is issued, both the agence	t Riders (Note: If a rider is issued, both the agency and contractor need one)		
 Agency rider 			
Contractor rider	Expiration date		
Local Agency Construction Contract Management 7 (Complete this section if local agency hired a consulting Team and staff proposal received			
 OSE part of interview panel for candidates 	Yes No		
1. If Yes , interview guidelines developed			
Resumes submitted and prescreened			
Questions developed and approved			
Scoring system for candidates developed			
Interviews scheduled on	 		
Approval of candidates			
2. If No , resumes with qualifications submitte	ed		
Minimum qualifications for candidates developed			
Scoring system for candidates developed			
Approval of candidates			
 Staff substitution process developed 	Yes No		
Preconstruction Meetings			
 Only for federal-aid projects, send CL-3 "Residence of the company o	lent Engineer Contract Pr	ovisions	S Checklist" to the
resident engineer prior to the OSE/resident eng	ineer preconstruction con	ference.	
 Discussed CL-2 "Preconstruction Conference 	Checklist"		
with resident engineer before meeting		Yes	No
 Attended local agency/contractor preconstruction 	on meeting		No
Contract Plans and Specifications			
Special provisions received?		Yes	No
Contract plans received?			No
Received project files from the oversight project engine	eer		No
Discussed PS&E and files with oversight project engine	eer	Yes	No
Pre-job Site Review			
Review job-site with Caltrans maintenance supervisor		Yes	No
Established maintenance's and contractor's area of responsibility			No
1	•		

CL-2 Local Agency and OSE Preconstruction Conference Checklist Completed by OSE at Conference

			Date
Lo	cal Agency	Dist/Co/Route/KP	
	pe of Work	Location	
Fee	deral-aid Project: Yes No	Federal-Aid Project No.	
Co	ntract Amount \$	Structures Work: Yes No	,
	NOTE: For nonexempt projects, inv	ite FHWA engineer to the meeting	!•
1.	Introductions Include participant responsibilities and relation to p CL-1)	roject. (Invite those people listed a	s "Contacts" on
2.	Construction Manual Does the resident engineer have an up-to-date copy copies of latest Construction Policy Bulletin (CPB) transmittals and CBs.) Yes No Comments:		
3.	Project Staffing (CM 5-102 Category 1) Is there a list of names and titles of all staff assigned Has the resident engineer prepared a "Resident Eng Comments:		s 🗌 No 🗌
4.	Project Files (CM 5-102) (CM 5-104) Is the resident engineer using the Caltrans uniform Comments:	filing system? Yes No No	
	 "As built" changes to be drawn on a set of planagreement requirement. "As-builts" need to Documents bonds Project Record Review Schedule Developed 	be updated on a regular basis.	er cooperative
5.	Safety (CM 2-105A) Local agency has a Construction code of safe practic Comments:	ces: Yes No	
6.	Contract Schedule (CM 3-805) Contract time measurement: Working days First working/calendar day CPM 5 Comments:		

7.	Materials (CM Chapter 6) State furnished material included in contract: Yes No Comments:
	Accounting procedures for state furnished materials Lead-time for availability of state furnished materials
	State contact person for state furnished materials
	Form CEM-3101, "Notice of Materials to be Used," submittal. requirements discussed Relationship with METS and specialty tests Testing requirements discussed (FL-4) Local agency/consultant staff performing acceptance testing needs Caltrans certification and are in Caltrans certified testers tracking system Failing Tests – Acceptance and re-testing requirements Operating range failure
	Contract compliance failure Material on hand submittals review (if state funds involved) Mix Design approval
8. 9.	Weight Limitations And Overloads (CM 3-701D) Discussed Caltrans policy on overloads hauled from outside of the project limits Construction Staking (CM 3-506) (if applicable)
	Method of staking reviewed Requirements for advanced notice reviewed DH-SP-16, "Request for Construction Staking," provided and discussed Establishment of priorities discussed Preservation of stakes and re-staking charges discussed
10.	Air, Water and Noise Pollution Control (CM 7-104) Water Pollution Control Program and SWPPP submittal and approval requirements discussed 2000-WPC handbooks in resident engineer office: Yes No Comments:
	Local Agency submitted HOC/NOI: Yes
	DC-CEM 2001 National Pollution Discharge Elimination System Annual Certification due by July 1 each year WCP or SWPPP review schedule discussed Sound control requirements reviewed Air quality requirements discussed

11. Environmental Hazards (CM 7-106)
Notification of discovery of unknown hazardous materials/waste clean up procedures discussed
(if encountered) as outlined in cooperative agreement
Hazardous waste storage and labeling requirements for material stored in Caltrans R/W
EPA ID number requirements (Caltrans usually obtains this when material is generated in Caltran
R/W
12. Prosecution of Work
Start of work requirement discussed
Maintenance and safety review
Final inspection punch list
12 D 11 T 100
13. Public Traffic
Night work on the job: Yes No
Comments:
Requirements for handling public traffic discussed (including pedestrians, bicycles, ADA)
Lane closure notification discussed
Major closure notification requirements discussed
15 day vertical and horizontal restriction notification (forms used)
COZEEP
COZEEI
14. Incident Reporting
Requirements discussed
15. Contract Change Order Process
Contract change orders requiring concurrence
Timeframe for design concurrence (FL-3)
16. Caltrans Utility Services
Caltrans Electrical Maintenance notification requirements versus utility notification (USA)
Cantains Electrical Maintenance notification requirements versus utility notification (OSA) Inspection by Caltrans electrical specialists discussed
Changes to Caltrans water system
Changes to Cattrans water system
17. OSE's Reviews
Job-site review schedule developed
18. Contractor Submittals
Ask resident engineer to prepare a list of submittals the contractor is required to submit as require
in the contract. (Resident engineer should prepare the list before resident engineer/contractor
preconstruction conference.)
19. Public Claims
How public claims are to be handled
110 w public claims are to be handled
20. Structure Items
OSC/OSE discusses BCM 2-19.0 requirement

21. Ei	icroachment Permit
	Discuss requirements in both encroachment permits (contractor's and local agency's)
	Right of Way maintenance by the local agency and their contractor
22. Pı	rogress Pay Estimates
, .	OSE review if federal or state funds are involved
	OSE review if rederat of state funds are involved
23 I	abor Compliance
23. L	•
	Roles and responsibilities – federal-aid versus non-federal projects
	Local Agency's Labor Compliance Officer
24. C	ontractor Claims
	Roles and responsibilities – federal-aid versus non-federal projects
25. Fe	deral Requirements (Only for Federal-aid Projects)
	Local Assistance Procedures Manual (LAPM)
	Does the resident engineer have access to a copy of the LAPM? Yes No
	Project Staffing (LAPM 16-5)
	Who is the resident engineer, and is that person in "responsible charge" of the project?
	(Check at preconstruction conference.) Yes No
	· — — —
	If no, who is the local agency's employee designated to be in "responsible charge"?
	DDE (CM 0.2) / ADM 0.4)
•	• DBE (CM 8-3) (LAPM 9-4)
	DBE Information Form
	Resident Engineer's responsibility to assure DBEs provide a commercial useful function
	DBE substitution requirements
	What was the contract DBE goal? What is the contractor's DBE goal? If the contractor's goal is
	less than the contract goal, is there a "good faith" statement in the project files? For nonexempt
	project, did FHWA approve the "good faith" statement? Yes No
	Comments:
	Prompt Payment (CM 3-807) (LAPM 9-9)
	Discuss prompt payment requirements to subcontractors in the contract

• Materials Files (LAPM 16-23)
Is the local agency's quality assurance program (QAP) in the resident engineer's office?
(Local agencies can not just reference Caltrans QAP – they need to have their own QAP.)
Yes No No
Has the local agency hired a consultant to do the materials testing for this project?
(Skip the following questions if the answer is no.) Yes \(\sum \) No \(\sum \)
Is there a copy of the consultant's QAP in the project files? Yes \(\square\) No \(\square\)
• Environmental (CM – Chapter 7) (LAPM 6-15)
Is the environmental document or mitigation monitoring reporting record for this project in the
resident engineer's files? Yes No
Discuss resident engineer responsibility for conformance with the mitigation requirements
Project Funding (LADM 2.1 and 16.12) (CM 5.2)
• Project Funding (LAPM 3-1 and 16-13) (CM-5-2)
Does the resident engineer have a copy of the E-76 (Authorization to Proceed with Construction), a copy of the Federal Detail Estimate, and Finance Letter? Yes No
copy of the Federal Detail Estimate, and Finance Letter? Yes No
Discuss federal non-participating work items
Discuss redetal non-participating work items
Construction Project Information Signs
Do the signs conform to Type 1 Construction Project Information sign standards?
Yes No No
If no, has the FHWA Engineer approve the non-standard sign? Yes No
• FHWA
Discuss communication with FHWA engineers requirements as outlined in Chapter 7 – Section 2
Federal Highway Administration.
Non exempt project (CM 5-007A and 5-308A) or
Exempt Project (CM 5-308 B)

CL-3 Resident Engineer Contract Provisions Checklist

Federal Contract Provisions required in the Construction Contract (Only for Federal-aid Projects) (Reference: LAPM – Exhibit 12-E PS&E Checklist Instructions)

struction conference.
ontract provisions number where the
Page No.
d
l-aid
een
ion

Co	ontract goa	l Race conscious portion	Race neutral portion
N		e conscious and race neutral portion is obtaine cer. Local agency's DBE Liaison Officer	
	☐ This co	ontract has a specific DBE goal to meet the int	tent of the DBE Program
		ontract has no specific DBE goal as it has been mentation verifies this determination and is or	** *
:		ract has a specific race conscious goal, compleract does not have a specific race conscious go	
,	The follow Specification	with specific goals (Check if included and ring applicable Caltrans Standard Special Provons or their equivalent are included in the coning may be required).	visions (SSPs) to Caltrans Standard
	`	. ,	Page No.
	2-1.01	"General" Required listing of proposed sul	bcontractors and required
	contra	ct assurance statement or equivalent provision	
	☐ "Listin	g of Subcontractors" or equivalent form	
	2-1.02	"Disadvantaged Business Enterprise (DBE)"	or equivalent provisions
	2-1.02	A "DBE Goal for This Contract" or equivaler	nt provisions
	2-1.02	B "Submission of DBE Information" or equiv	valent provisions
	☐ 3- "Aw	vard and Execution of Contract" or equivalent	provisions
	☐ Caltrar	ns SSP 5-1 "Subcontractor and DBE Recor	ds" or equivalent provisions
	☐ Caltrar	ns SSP 5-1. "DBE Certification Status Change	ge" or equivalent provisions
	Caltrar	ns SSP 5-1. "Performance of DBE Subcontra	actors and Suppliers" or
	eguiva	llent provisions	
	_ ^	ns SSP 5-1. "Subcontracting" or equivalent pro	ovisions ———
		ns SSP 5-1. "Prompt Progress Payments to Sul	
	provisi		1
	_ ^	ns SSP 5-1. "Prompt Payment of Withheld Fu	nds to Subcontractors" or
		lent provisions	
	^	ns "SSP DBE Information" Form or equivalen	

В.	Contracts without specific goals (Check if included and indicate page number) The following applicable Caltrans Standard Special Provisions (SSPs) to Caltrans Standard Specifications or their equivalent are included in the contract Special Provisions with page numbers noted (editing may be required).	
	2-1.01 "General" - Required listing of proposed subcontractors and required	Page No.
	contract assurance statement or equivalent provisions	
	"Listing of Subcontractors" or equivalent form	
	2-1.02 "Disadvantaged Business Enterprise (DBE)" or equivalent provisions	
	3- "Award and Execution of Contract" or equivalent provisions	
	Caltrans SSP 5-1 "Subcontract and DBE Records" or equivalent provisions	
	Caltrans SSP 5-1"DBE Certification Status Change" or equivalent provisions	
	Caltrans SSP 5-1. "Subcontracting" or equivalent provisions	
	Caltrans SSP 5-1. "Prompt Progress Payments to Subcontractors" or equivalent provisions	
	☐ Caltrans SSP 5-1. "Prompt Payment of Withheld Funds to Subcontractors" or	
	equivalent provisions	
C.	Buy America Specification	Page No
	Caltrans SSP 5-1 "Buy America Specification"	
D.	Federal Trainees (Check appropriate box and indicate page number if requirement appropriate box and indicate page number in the page number in	oplies)
	The project has less than 100 working days. A Federal Trainee goal and special provisions are not required.	
	 Analysis of the Engineers Estimate has the dollar value under \$200,000. (LAPM A Federal Trainee goal and special provisions are not required. Caltrans SSP – "Federal Requirement Training Special Provisions" (FR-15 and FR-16) are included. The Trainee goal is 	12-23)
E	Federal Wage Rates	
1.	_	
	Federal Wages Rates are physically incorporated in this contract.	

NOTE to resident engineer: If any of the above-required federal contract provisions are not included in your contract, a contract change shall be executed to include the provisions. Failure to include the provisions can result in the loss of federal funds for the contract.

CL-4 OSE's Construction Contract Administration Verification Checklist

			Date
Dist/Co/Route/KP		Location	
Local Agency		Contractor	
Percentage of Work Complete		 -	
			umber
	he sections that heral-aid project so		d. For federal-aid projects,
Project Files (CM 5-102) Is the Caltrans uniform filing sys Yes No Comments:	tem beginning us	sed? (Check quarte	erly for continued Quality Assurance
Monthly Progress Pay (If state Approved by OSE? Yes ☐ N Comments:		in contract)	
	neat? (Note: Loca ame information	al agency can use the as required in 5-00	heir own forms, however, their form 04 & 005. Repeat checking until you
Contract Change Orders (CM Is there a list of the approved and quarterly for QA.) Yes No Comments:	pending CCOs?	? (Check 3 months	after start of construction, then check
Materials Files (CM 3-6) Is there a copy of the consultant of the consultant of the Comments:	naterial tester's (Caltrans certification	ons in the project files?
Spot-check the following items	list below on a c	quarterly basis for	· QA.
Is the local agency filing Not Comments:	ice of Materials	to be used? Yes] No [

Is the local agency filing the Certifications of Compliance? Yes No Comments:
Do the Certifications of Compliance contain the required information? Yes \(\subseteq \) No \(\subseteq \) Comments:
Is the local agency filing Report of Inspection of Materials, and are material release tags/stickers attached? Yes No Comments:
Are trial batch test results being properly identified and accepted? Yes No Comments:
Are there Acceptance Sampling and Testing Reports in the files? Yes No Comments:
Is there a "Summary Log" of Acceptance tests? Yes No Comments:
What is the frequency of tests - frequency tables used? Yes \[\] No \[\] Comments:
Is the frequency of tests being monitored? Yes \(\subseteq \text{No } \subseteq \) Comments:
Are failed tests documented in the files with cross-references to re-tests? Yes No Comments:
Does the resident engineer see the test reports? Yes \(\subsection \) No \(\subsection \) Comments:
Are "As built" changes being drawn on a set of plans or entered in a computer file? (CM 5-104) (LAPM 17-4) Check quarterly to make sure as-builts are being updated. Yes No Comments:

Storm Water Pollution Prevention Plan (SWPPP) – Water Pollution Control Program (WPCP) (CM 7-104)
Has the Resident engineer reviewed and approved per district/region policy the contractor's SWPPP OR WPCP? (Check one month after start of construction.) Yes No Comments:
Is the resident engineer preparing special daily reports on storm water pollution prevention? Are the diaries thorough and complete? (Spot-check quarterly for QA.) Yes No Comments:
Was the Annual Construction Activity Certification submitted annually (by June 15)? Yes NOTE: Form needs to be submitted to District/Region Construction Storm Water Coordinator. Comments:
Tour the construction site. Is the contractor deploying the best management practices called for in the SWPPP/WPCP? (Spot-check quarterly for QA.) Yes \(\subseteq \) No \(\subseteq \) Comments:
Environmental Hazards and Safety Procedures (if encountered or part of contract) (CM 7-106) (OEFIG 4.1.14) Is resident engineer adhering to the hazardous material and waste requirements? Yes No Comments:
Electrical Systems: (if modifying or adding a new Caltrans electrical system) (CM 4-86) OSE request inspection by Caltrans Electrical Specialist? Yes No Comments:
OSE reported changes to District Electrical Maintenance? Yes No Comments:
Safety (CM 2-102) Resident engineer and Project Safety Coordinator monitoring and documenting contractor's compliance with safety requirements? Yes No Comments:
Traffic Control : (CM 2-204) Resident engineer assuring conformance to district approved traffic control plans? If changes have been made, was district prior approval obtained? Yes No Comments:

OSE performed Day Safety verification? Yes No Comments:
OSE performed Night Safety verification? Yes No Comments:
Construction sign visible and function properly? Yes \(\square\) No \(\square\) Comments:
Stripes and delineation well maintained. Yes No Comments:
Temporary devices properly positioned. Yes \(\square \) No \(\square \) Comments:
K-rails properly placed. Yes No Comments:
Contractor provides safe access to and from work area. Yes No Comments:
Detours are built to accommodate people with disabilities, pedestrians and bicyclist where they can be excepted to be present. Yes No Comments:

CL-5 Federal-aid Projects

NOTE: Federal-aid Projects use only* **Contract Time** (CM 3-805) (LAPM 16-8) Is there an established method to account for contract time? (Note: Local agency can use their own form and method. Check one month after start of construction.) Yes No Comments: Labor Compliance (CM 8-103) (LAPM 16-15) Are diaries being spot-checked against certified payrolls? (Check 3 months after start of construction and quarterly for QA.) Yes \(\square \) No \(\square \) Comments: What is the established method? Measurement and Payment (CM 3-903) Are there source documents supporting progress payments made to contractor? (Spot-check after second progress payment to the contractor.) Yes No Comments: Are there separate item sheets for each contract item paid? (Spot-check after second progress payment to the contractor, then quarterly for QA.) Yes No Comments: EEO/Wage Rate Posters (CM 8-102A) (LAPM 16-16) Are the federal posters posted for every worker to see, at or near the contractor's office at the construction site, or at the contractor worker's central gathering point? (Check one month after start of construction.) Yes No No Comments: Employee Interviews (CM 8-102A (2-3)) Is the local agency conducting employee interviews? (Check three months after start of construction. Repeat reviews quarterly to assure local agency is conducting interview per the frequency recommended in the CM) Yes No Comments: Have the interviews been signed and dated? Yes No Comments:

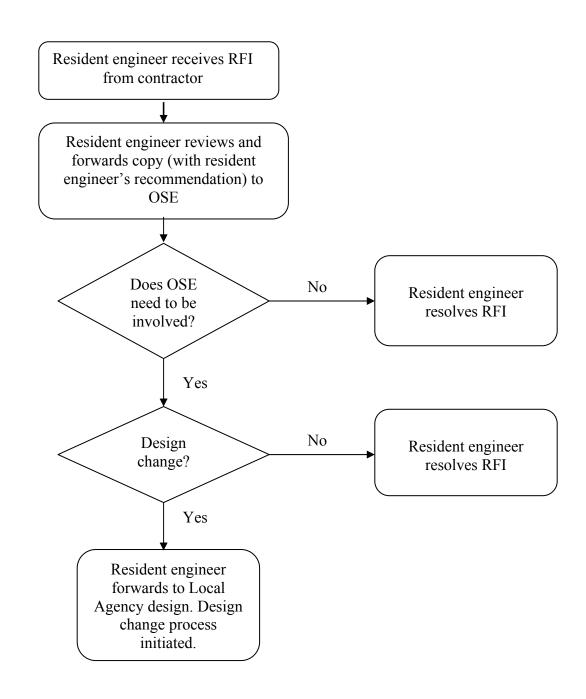
Any violation noted on the interviews? Yes No Comments:
Have the violations been addressed? (Check quarterly for QA) Yes \(\subseteq \text{No } \subseteq \) Comments:
Federal Training Requirements (CM 8-208, 8-105E, 8-103A) (LAPM 12-22 & 16-16) Are training requirements included in the contract? If not, disregard next question.
Is there documentation to show that the contractor is meeting the apprenticeship (training) goal? (Check three months after the start of construction, then check quarterly for QA.) Yes No Comments:
DBE: (CM 8-3) (LAPM 9-4) How is the local agency checking for DBE goal compliance and, that the DBEs listed are performing a commercial useful function? Check three months after start of construction, then check quarterly for QA
Payrolls? Yes No Comments:
Interviews? Yes No Comments:
Diaries? Yes No Comments:
Material Invoices? Yes No Comments:
FHWA Communication (CM 5-007, 5-308) Do the contract change orders note federal-aid eligibility or in-eligibility? (Check three months after start of construction, then check quarterly for QA.) Yes No Comments:
Did the resident engineer receive written and signed prior approval for all major contract change orders? (Check three months after start of construction, then check quarterly for QA) Yes No Comments:

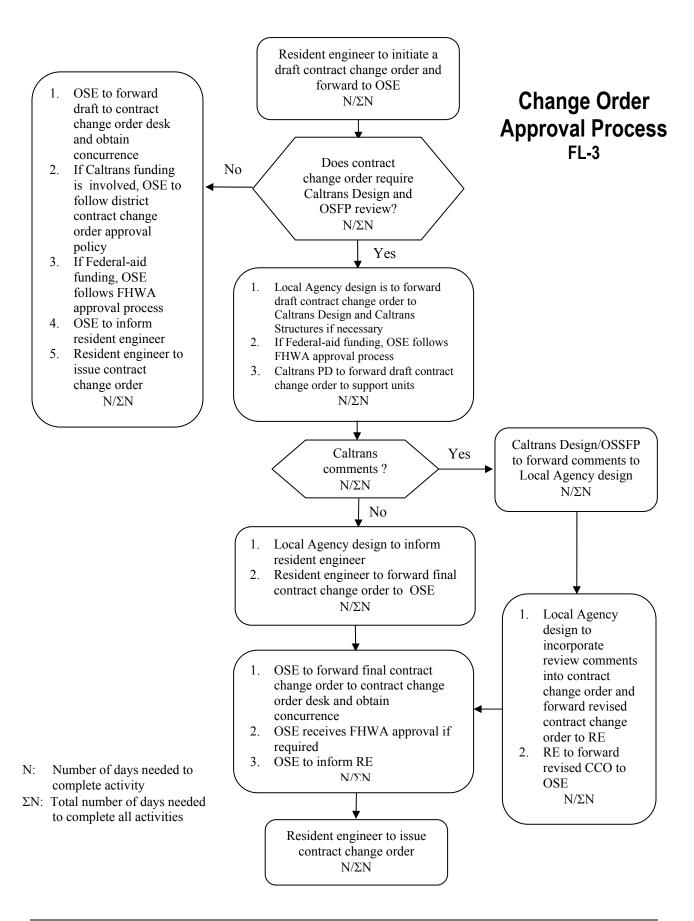
Is the FHWA engineer being contacted as the events listed in CM 5-007 occur? (Check quarterly for compliance) Yes No Comments:
Buy America (CM 3-605) (2.4.1.1 and 2.4.2) Are "Buy America" certification requirements included on all invoices and Certifications of Compliance for iron and steel products? (Spot-check three months after start of construction, then spot-check quarterly for QA) Yes No Comments:
Review the construction area and the contractor's on-site yard, quarterly, and check to make sure foreign iron and steel products are not being incorporated into the project without resident engineer's approval or a FHWA waiver. Yes No Comments:
Environmental (CM – Chapter 7) (LAPM 6-15) Is the environmental document for this project in the resident engineer's files? (Check at the preconstruction conference) Yes No Comments:
Is the construction project adhering to the mitigation requirements in the environmental document? Yes \(\sqrt{No} \sqrt{\sqrt{No}} \sqrt{\sqrt{No}} \sqrt{\sqrt{No}} \sqrt{\sqrt{No}} \sqrt{\sqrt{No}} \sqrt{\sqrt{No}}
Is there documentation to show the contractor and resident engineer are adhering to the requirements? (Check quarterly for QA) Yes No Comments:

CL-6 FHWA Final Acceptance Checklist For Federal-Aid Nonexempt Projects

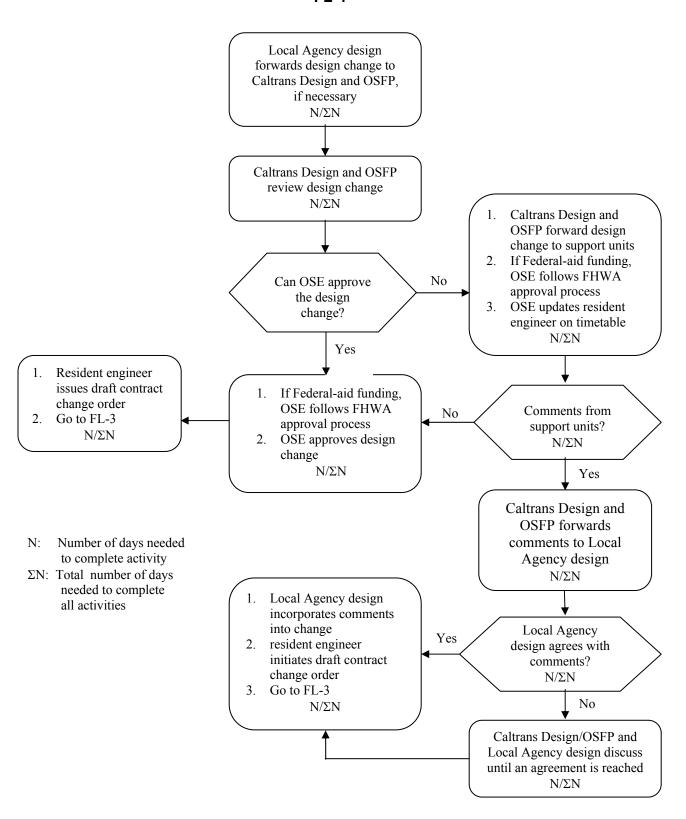
Project information		
EA Number		
Project Description		
District/County/Route/KP		
Date Awarded	Approval Date	
Time Started	Work Started	
Contract Days		
Original Completion Date		
Liquidated Damages (Number of days and to	otal dollar amount)	
Submittals	Submitted?	Date
Material Certification (CM 6-1.1)	Yes/No - N/A	
Form FHWA-47M	Yes/No - N/A	
Proposed Final Estimate	Yes/No – N/A	
Last Statement of Working Days	Yes/No - N/A	
Contractor's Written Statement of Claims		
(Submitted separately)	Yes/No - N/A	
List of contract change orders	Yes/No - N/A	
Approved and Pending	Yes/No - N/A	
Participating/Non-Participating	Yes/No - N/A	
List of Time Extensions	Yes/No - N/A	
FHWA Approved/Not Approved	Yes/No - N/A	
Form CEM-2402 (F) Final Report Utilization of DBE	Yes/No – N/A	
Mitigation Monitoring Reporting Record	Yes/No – N/A	
If available, status of environmental commental		
Additional Information		
Labor Compliance Problems		
Any other changes		
(Original – Project File co	c – FHWA – with Proposed Final Esti	imate)

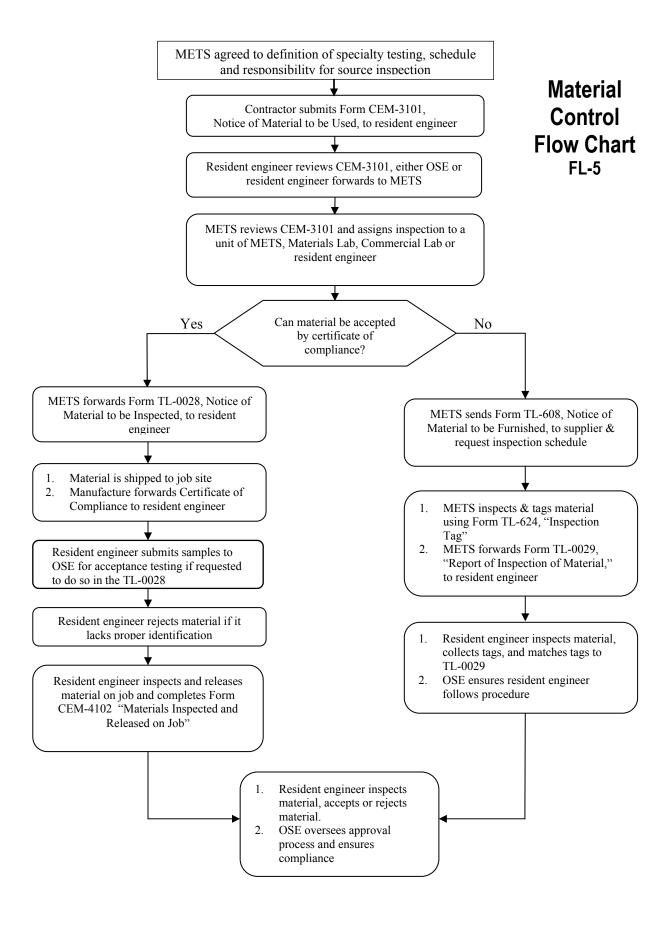
Flow Chart for Approving Requests for Information (RFI)





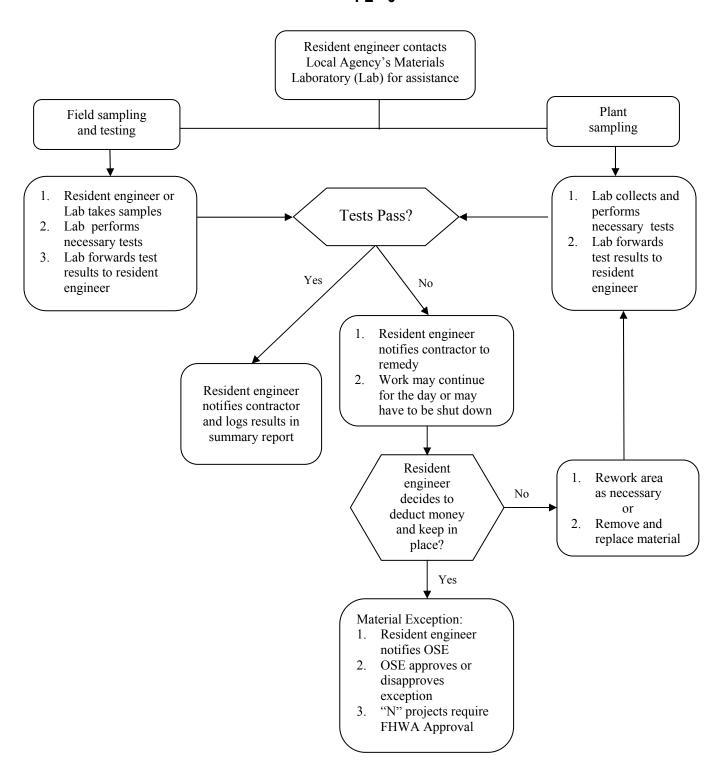
Local Agency Initiated Design Change Process FL-4





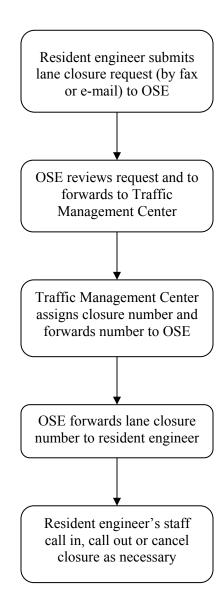
Material Testing Process

FL-6

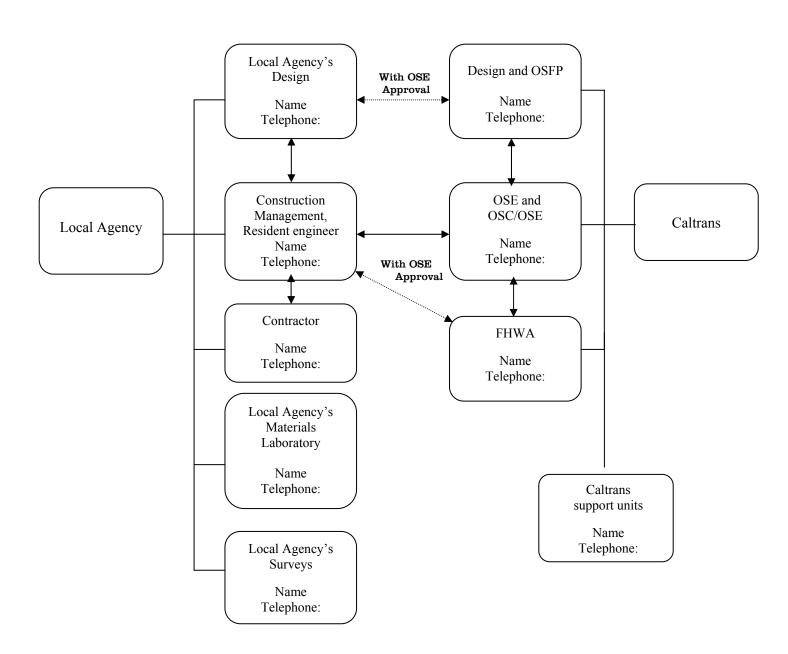


Lane Closure Approval Process

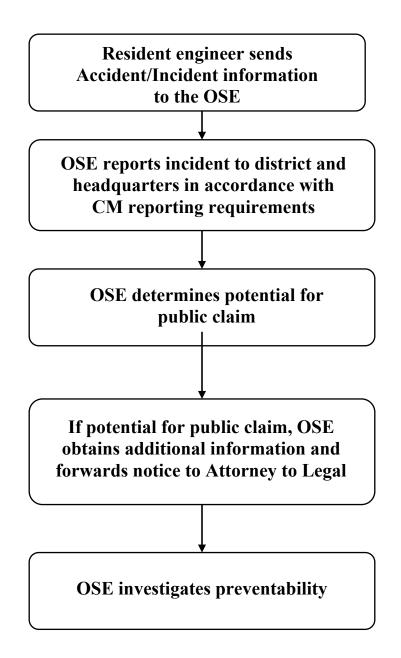
FL-7



Communication Channels Flow Chart FL-8



Accident/Incident Reporting Process FL-9



Procedures for Clearance Notification FL-10

- 15 calendar days before scheduling, contractor notifies resident engineer of scheduled impaired clearances
- Resident engineer complete appropriate notice and forwards to OSE
- OSE confirms completeness of clearance form
- OSE forwards form to Transportation Permits Office
- OSE informs resident engineer when temporary restriction can be placed
- Resident engineer measures actual conditions immediately after temporary restriction is in place and forward to OSE
- OSE forwards actual conditions to Transportation Permits Office

OSE inform Transportation Permits Office of permanent clearance after temporary restrictions are removed

Notice of Change in Clearance or Bridge Weight Rating
Notice of Change in Vertical or Horizontal Clearance
TR-0020
Notice of Change in Clearance or Bridge Weight Rating
TR-0029

FM-1 PRE-CONSTRUCTION CONFERENCE	DATE:
ATTENDANCE ROSTER	
AGENCY:	Job Stamp

	NAME	Affiliation/Title	Telephone/Fax/E-mail
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

DOCUMENTS BOND OF STATE HIGHWAY OVERSIGHT PROJECTS

CEM-1101(NEW 02/2004)

{To Accompany the Permit} Streets and Highways Code Section 678

PRINCIPAL		BOND NUMBER		BOND'S EFFECTIVE DATE	PERMIT NUMBER		
LOCATION	DISTRICT		COUNTY	ROUTE	KP/PM		
PROJECTS NAME				PROJECT'S E.A. NUMBER			
DISTRICT PROJECT MANAGER			PROJECT MANAGER'S MAILING ADDRESS BUSINESS PHONE NU		BUSINESS PHONE NUMBER		
(PLEASE FILL OUT THE FORM							
Know All Persons By These	Presents:						
That, as PRINCIPAL, and							
a surety company qualified and duly licensed to do business in the State of California, as SURETY, are held and firmly bound to the							
STATE OF CALIFORNIA, as OBLIGEE, in the sum of: <u>TWENTY THOUSAND dollars (\$20,000.00)</u> , lawful money of the United							
States of America, to be paid to the OBLIGEE, for which payment, we bind ourselves, our heirs, executors, administrators, successors							
and assigns, jointly and severally, to those persons referred to in item #4.							

THAT THE CONDITION OF THIS OBLIGATION IS SUCH.

- 1. That whereas PRINCIPAL has made, or is about to make a submittal to the State of California for an oversight project, to be constructed under an encroachment permit, in accordance with Article 2, Chapter 3, Division 1 of the Streets and Highways Code to place, change or renew an encroachment in, under or over any portion of a state highway. A bond payable to the State of California is a required condition of the Streets and Highways Code Section 678. Therefore, this bond is executed and tendered in accordance with the Streets and Highways Code.
- 2. This bond shall be subject to all the previously mentioned terms and provisions of the Streets and Highways Code.
- That if the PRINCIPAL shall fail to faithfully provide all final documentation as required in item #9, then the SURETY herein shall pay for the production of these documents by others.
- 4. No right of action shall accrue under this bond to or for the use of any person or entity other than the State of California.
- 5. That this bond shall be deemed continuous in form, remain in full force and effect, until notice is given to the SURETY by the Department of Transportation. The notice shall include that the PRINCIPAL has fulfilled their obligations and provided the Department of Transportation with all the required documents listed in item #9.
- The SURETY shall give at least thirty (30) days written notice of the termination, cancellation or material change of the policy. <u>Such notices shall be sent to the Department of Transportation's district project manager as listed in the heading.</u> The notice shall include the permit number and the projects EA number, location, county, route, and kilometer post (KP) or post mile (PM).
- That the SURETY shall bear no liability on this bond in the event the encroachment permit issued to the PRINCIPAL is cancelled or withdrawn prior to commencement of work on state property by the PRINCIPAL.
- This bond is executed to comply with the provisions of Chapter 3, Division 1 of the Streets and Highways Code and of Chapter 2,
 Title 14, Part 2 of the Code of Civil Procedure, and said bond shall be subject to all of the terms and provisions thereof.

ADA Notice For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

DOCUMENTS BOND OF STATE HIGHWAY OVERSIGHT PROJECTS

CEM-1101 (NEW 02/2004)

That the following checklist of documents is prepared in accordance with all appropriate Department of Transportation manuals,
plans and specifications, encroachment permits, and project cooperative agreements. The completed documents are required upon
completion of the project and are subject to the approval of the Department of Transportation's State Representative.

AS-BUILT PLANS PER COOPERATIVE AGREEMENT AND ENCROACHMENT PERMITS					
PROJECTS WITH STRUCTURES Red Marked As-Built for Structures Final As-Built for Structures Shop Drawings On Microfilm Joint Movement Calculations for Structures DSD-D0129 Structure Construction Records Other Structure Construction Records DH-0S M8 DH-0S M8 DH-0S M8 DH-0S M78					
SURVEY AND RIGHT-OF-WAY DOCUMENTS					
WARRANTIES	MAINTENANCE AGREEMENTS				
FEDERAL-AID PROJECTS Final Inspection of Federal Aid Project FHWA 1448C Local Agency Final Inspection For 17-C LAPM Material Certification FHWA-47M Contractor's Written Statement of Claims Final Report CEM-2402F (Utilization of DBE) List of Contract Change Orders Mitigation Monitoring Reporting Records 10. The documents listed above shall be submitted to the Department of Transportation's State Representative within 30 90 180 days of completing the project.					
PRINCIPAL	DATE				
BUSINESS ADDRESS OF PRINCIPAL	BUSINESS PHONE				
CITY PRINT OR TYPE NAME OF AUTHORIZED SIGNATURE AND TITLE	STATE ZIP CODE AUTHORIZED SIGNATURE AND TITLE				
NAME OF SURETY	DATE				
BUSINESS ADDRESS OF SURETY	BUSINESS PHONE				
CITY	STATE ZIP CODE				
I certify (or declare) under penalty of perjury that I have executed the foregoing bond under an unrevoked power of attorney, executed on, in, under the laws of the State of California.					
PRINT OR TYPE NAME OF ATTORNEY-IN-FACT FOR SURETY	SIGNATURE OF ATTORNEY-IN-FACT FOR SURETY				

Acronyms

AAA Advertise, Award and Administer
ADA Advance Deposit Application

Caltrans California Department of Transportation

CHP California Highway Patrol
CM Construction Manual

COZEEP Construction Zone Enhanced Enforcement Program

CPM Critical Path Method
CRP Cost Reduction Proposal

CT Caltrans

DBE Disadvantage Business Enterprise

DDDC Deputy District Director for Construction

DME District Materials Engineer

DVBE Disabled Veteran Business Enterprise

E Exempt

EA Expenditure Authorization
EPM Encroachment Permits Manual
FHWA Federal Highway administration

ISTEA Intermodal Surface Transportation Efficiency Act

LAPM Local Assistance Procedures Manual

METS Materials Testing and Engineering Services

N Nonexempt

NEPA National Environmental Policy Act

NOPC Notice of Potential Claim

NPDES National Pollutant Discharge Elimination System

OSE Oversight Engineer

OSC/OSE Office of Structures Construction – Oversight Engineer

OSFP Office of Special Funded Projects
PS&E Plans Specifications and Estimate

QA Quality Assurance

RFI Request For Information

RTPA Regional Transportation Planning Agency

SFM State Furnished Materials

SMR Structural Materials Representative

STIP State Transportation Improvement Program

SWPPP Storm Water Pollution Prevention Plan

TEA-21 Transportation Equity Act for the 21st Century

TOPSS Transportation Operations and Project Support System

WPC Water Pollution Control
WPCP Water Pollution Control Plan